HAZARDOUS RANKING SYSTEM PRESCORE SITE INSPECTION NARRATIVE REPORT

NYD002034056

Target Rock Corporation Site No. 152119
Town of Babyion Suffolk County

DATE: December 1993

Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, *Commissioner*

Division of Hazardous Waste Remediation
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By:

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SITE INSPECTION NARRATIVE REPORT
TARGET ROCK CORPORATION
SUFFOLK COUNTY, NEW YORK
NYSDEC I.D. No. 152119

December 1993

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TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

LIST OF FIGURES

LIST OF TABLES

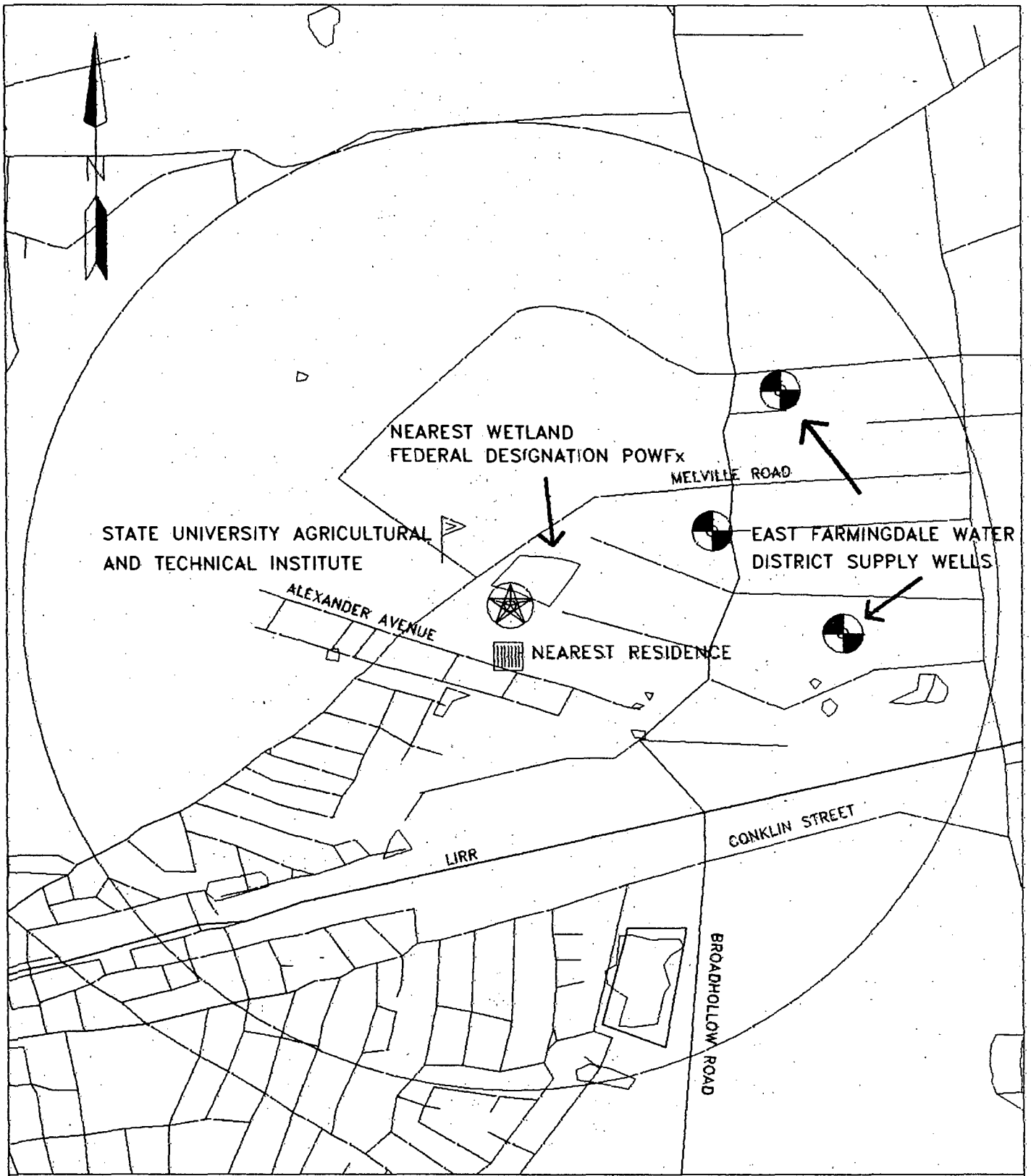
Date:	December 1993
Prepared By:	Michael Lehtinen Lawler, Matusky & Skelly Engineers EPA Region II
Site:	Target Rock Corporation Broadhollow Road Town of Babylon Suffolk County New York
EPA I.D. No.:	NYD002034056
CERCLA TDD No.:	NYD002034056

1 INTRODUCTION

Lawler, Matusky & Skelly Engineers (LMS), under contract to the New York State Department of Environmental Conservation (NYSDEC), was retained to perform a site inspection (also known as a Phase II investigation) at the Target Rock site (Comprehensive Environmental Response, Compensation, and Liability Information System [CERCLIS] No. NYD002034056) (References 1 and 2). Because the scope of the Phase II encompasses the same activities as an site inspection, all references to the SI will be understood to be references to the Phase II. The site is located off Broadhollow Road in the Town of Babylon, Suffolk County, New York (40°44"43' north latitude and 73°25"47' west longitude) (Figure 1) (Reference 3).

The purpose of the Phase II site investigation is to identify and evaluate the presence, concentration, and nature of any contamination and determine, to the extent limited by the scope of work, its release to the environment. The scope of the Phase II site investigation included a file review; site reconnaissance; installation of four on-site monitoring wells; sampling of groundwater, soils, sediments, and surface water; and preparation of an interpretive report. The objectives of this work effort were to determine the significance of any contaminant release and the degree to which it may threaten surrounding areas.

The purpose of the site inspection is to investigate potential Superfund (Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA]) sites for evaluation pursuant to the Hazardous Ranking System (HRS). The objective of the site inspection is to evaluate the extent to which a site presents a threat to human health or the environment by collecting and analyzing wastes and/or environmental media samples and determining whether hazardous substances are present on the site and/or are migrating to the surrounding environment. Information obtained from the site inspection is used to determine whether the site qualifies for inclusion on the National Priorities List (NPL) or should be dropped from further Superfund consideration. The scope of the site inspection includes collecting analytical data and nonsampling information to complete an HRS package. The site inspection involves



SCALE: 0 500 1000 ft.

This map was prepared by LMS' Geographic Information System (GIS) using data from the following sources: National Wetlands Inventory, NYSDEC Wetlands Inventory Maps.

LEGEND

- Local Roads
- Major Roads
- Water Features
- Railroads
- National Wetlands

FIGURE 1

ONE-MILE RADIUS MAP
TARGET ROCK

NYSDEC I.D. No. 152119
1993 HRS Score

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reviewing available information, conducting field work (Phase II investigation), and evaluating the site inspection data using the Prescore computer program to score the site.

2 SITE DESCRIPTION AND REGULATORY HISTORY

2.1 Site Description

The Target Rock Corporation site is a wholly owned subsidiary of Curtiss-Wright Corporation, which manufactures valves used primarily for nuclear power applications. The site is currently an active machine shop consisting of two manufacturing buildings on a total of 11 acres of relatively flat land that was formerly a gravel bank (Figure 2). Target Rock has manufactured valves at the site since 1982 and operations continue. The site is located in an industrial commercial area but residential areas are located immediately south of the site.

2.2 Regulatory History

From mid-1982 to September 1983 wastewater from a valve testing operation was discharged to a dry well located toward the rear of the east manufacturing building. During routine inspections and sampling events, the Suffolk County Department of Health Services (SCDOHS) discovered the dry well discharges and a number of leaking and improperly stored drums (Reference 4). Several samples taken at discharge points contained various organic compounds. The wastewater discharged to the dry well contained up to 5% 1,1,1-trichloroethane (Reference 1, p. 4-1). Disposal practices were changed and drum storage improved.

Based on SCDOH files, a Phase I preliminary investigation was conducted at the site by Roux Associates, Inc., a subcontractor to Gibbs and Hill, Inc. (Reference 5). The scope of this investigation included a file review and site reconnaissance in order to provide a preliminary characterization of hazardous substances discharged at the site. The Phase I investigation confirmed that solvents were discharged to the dry well and a Phase II investigation was recommended (Reference 5).

2.3 Operational History and Waste Characteristics

Target Rock Corporation has been manufacturing and testing nuclear valves at the site since early 1982 (Reference 1, p. 4-1). The site was originally used as a sand and gravel bank and a J.C. Penney warehouse. The manufacturing and testing of the valves requires the use of various cutting oils, solvents, cleaners, and dyes.

From mid-1982 until September 1983, the wastewater generated by a valve testing operation was discharged directly to a dry well located to the rear of the east building (Reference 1, p. 4-1). This wastewater generated from a flood-washing process contained 5% 1,1,1-trichloroethane. The wastewater was reportedly discharged to the dry well at a rate of less than 2000 gallons per month. This discharge was stopped under order from SCDOHS in September 1983 (Reference 1, p. 4.2). Based on the estimated quantity of wastewater and the reported concentration of 1,1,1-trichloroethane, approximately 1500 gal of 1,1,1-trichloroethane were discharged into the dry well over the 1.5-yr period. A removal action occurred at the site in

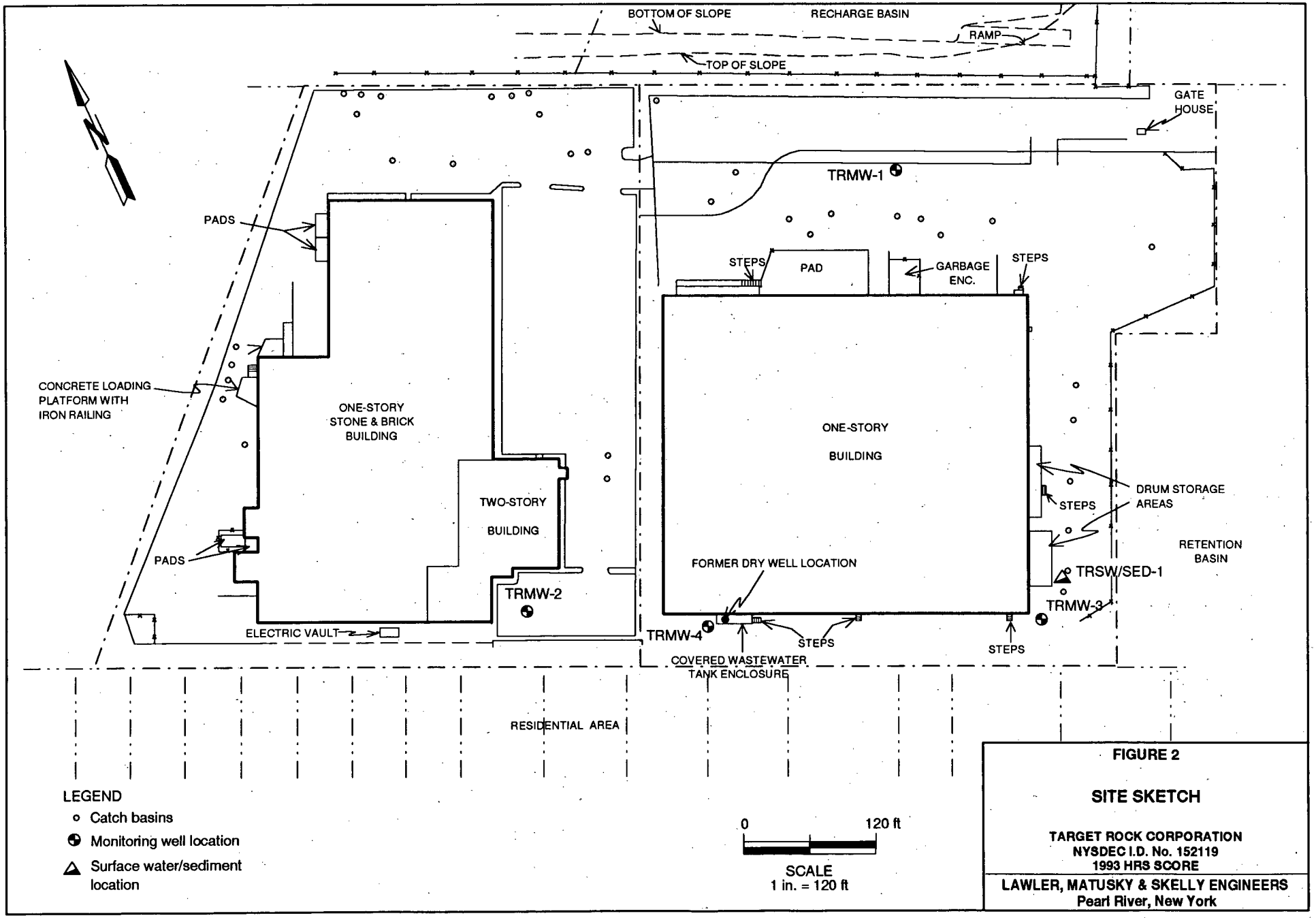

FIGURE 2

SITE SKETCH

TARGET ROCK CORPORATION
NYSDEC I.D. No. 152119
1993 HRS SCORE

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September 1983; the dry well and all visibly contaminated soils were excavated and removed from the site by a licensed waste hauler. The wastewater is now stored in stainless steel tanks housed in a covered containment structure.

Target Rock also had a number of improperly stored and leaking drums on the site in the early 1980s. These drums were stored along the eastern side of the east building. The drums contained a number of compounds, including oils, freon, acetone, kerosene, 1,1,1-trichloroethane, tetrachloroethylene, and unknowns. Runoff from the drum storage area reached a catch basin in the parking lot, prompting testing of the catch basin (Reference 1, p. 4-1). The quantity of material that leaked from the drums is unknown. During 1982 and 1983 the drum storage area was upgraded and drum storage practices were improved. An approved, watertight, covered containment area was built and surrounded by a chain-link fence.

3 WASTE/SOURCE SAMPLING

3.1 Sample Locations

A single soil sample was taken from the boring for monitoring well TRMW-4 on 15 July 1993 (Reference 1, p. 3-6). This boring was in the immediate vicinity of the former dry well and the sample was collected at the 12- to 14-ft level, which corresponds to the top of the water table. The soil sample was analyzed for target compound list (TCL) compounds, target analyte list (TAL) metals, and extraction procedure (EP) toxicity metals; results are presented in Table 1 (Reference 1, pp. 4-8A1 and 4-8A2). A surface water and sediment sample was retrieved from the catch basin adjacent to the former drum storage area. The surface water sample was retrieved on 26 August 1993 and analyzed for TCL compounds; results are presented in Table 2 (Reference 1, p. 4-10A). The sediment sample was collected from the catch basin on 26 August 1993 and was analyzed for TCL compounds and TAL metals; results are presented in Table 3) (Reference 1, pp. 4-10B1 to 4-10B3).

3.2 Analytical Results

Soils at the former dry well contain low levels of chlorobenzene at estimated concentrations (Table 1). Elevated levels of metals were not found in the soils. The surface water sample contained 1,1,1-trichloroethane and 1,1-dichloroethylene in concentrations below the quantitation limit. A number of tentatively identified compounds (TICs) were also found (Table 2). The sediment sample contained numerous volatile and semivolatile TICs primarily compounds associated with petroleum products.

3.3 Conclusions

Although there has been a documented release of 1,1,1-trichloroethane at the site, the removal of the dry well and associated contaminated soils appears to have alleviated most of the soil contamination associated with the former dry well (Reference 1, pp. 4-11 and 4-12). The sediment sample does not indicate that the sediment and soils around the catch basin are sources of contamination. The surface water sample contained 20 μg/l of 1,1,1-trichloroethane; however, it is believed that the water in the catch basin is actually more reflective of the

TABLE 1 (Page 1 of 2)

SOIL SAMPLE DATA SUMMARY (July 1992)

Target Rock NYSDEC LD. 152119

PARAMETER	TRMW-4
VOLATILE ORGANICS (mg/kg)	
Methylene chloride	0.001 b j
Acetone	0.008 b j
Chlorobenzene	0.003 j
Tentatively Identified Compounds	
Unknown alkane	0.034 (2) j
Unknown hydrocarbon	0.124 (2) j
Unknown cyclohexane	0.025 j
Unknown dimethylcyclooctane	0.027 j
SEMIVOLATILE ORGANICS (mg/kg)	
bis(2-Ethylhexyl)phthalate	0.046 b j
Tentatively Identified Compounds	
Unknown	0.209 (2) b j
2-Pentanone, 4-hydroxy-4-met	6.50 a b j
Benzaldehye	0.073 b j
Unknown bromocompound	0.250 b j
Unknown bromochlorocompound	0.210 b j
PESTICIDES/PCBs (mg/kg)	
Aroclor 1242	0.018 j
EP TOX METALS (mg/l)	
Arsenic, total	<1
Barium, total	<10
Cadmium, total	<0.1
Chromium, total	<1
Lead, total	<1
Mercury, total	<0.04
Selenium, total	<0.1
Silver, total	<1
CONVENTIONALS	
Percent solids, total (%w/w)	91.2

( ) - Number of compounds in total.
a - Suspected aldol condensation product.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.

TABLE 1 (Page 2 of 2)

SOIL SAMPLE DATA SUMMARY (July 1992)

Target Rock NYSDEC I.D. 152119

PARAMETER	TRMW-4	EASTERN US BACKGROUND NATIVE SOIL CONCENTRATIONS (b)
TAL METALS (mg/kg)		
Aluminum	748	33,000
Antimony	3.8 B	SB
Arsenic	0.31 B	3.0 - 12.0 æ
Barium	7.7 B	12 - 6,000
Beryllium	0.10 B	0 - 1.75
Cadmium	ND	0.1 - 1.0
Calcium	183 B	130 - 35,000 æ
Chromium	6.5	1.5 - 40.0 æ
Cobalt	ND	2.5 - 60.0 æ
Copper	2.3 B	1.0 - 50.0
Iron	3,230	2,000 - 550,000
Lead	0.61	4.0 - 61
Magnesium	208 B	100 - 5,000
Manganese	20.5	50 - 5,000
Mercury	ND	0.001 - 0.2
Nickel	1.5 B	0.5 - 25
Potassium	ND	8,500 - 43,000
Selenium	ND	0.1 - 3.9
Silver	0.71 B	-
Sodium	ND	6,000 - 8,000
Thallium	ND	-
Vanadium	2.4 B	1.0 - 300
Zinc	5.4	9.0 - 50
Cyanide	ND	-

æ - New York State background concentration.
(b) - Ref. 18.
B - Value is less than contract-required detection limit but greater than instrument detection limit.
ND - Not detected at analytical detection limit.
SB - Site background.

TABLE 2

SURFACE WATER SAMPLE DATA SUMMARY (AUGUST 1992)

Target Rock NYSDEC I.D. No. 152119

PARAMETER	TRSW-1	TRIP BLANK 8/25/92	NYSDEC CLASS GA STANDARDS
VOLATILE ORGANICS (pg/l)			
Methylene chloride	1 b j	1 b j	5.0
Acetone	5 b j	4 b j	NS
1,1-Dichloroethylene	7 j	ND	5.0
1,1,1-Trichloroethane	20	ND	5.0
Tentatively Identified Compounds	ND	ND	-
SEMIVOLATILE ORGANICS (µg/l)			
bis(2-Ethylhexyl)phthalate	1 j	NR	50
Tentatively Identified Compounds			
Unknown	22 (3) b j	NR	50 GV
Dodecanoic acid	3 b j	NR	50 GV
Tetradecanoic acid	2 b j	NR	50 GV
Hexadecanoic acid	4 b j	NR	50 GV
Unknown aliphatic	35 b j	NR	50 GV
Unknown aliphatic esters	133 (3) j	NR	50 GV
Benzenesulfonamide, n-butyl-	NR	NR	50 GV
PESTICIDES/PCBs (µg/l)	ND	NR	-

( ) - Number of compounds in total.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.
GV - Guidance value.
ND - Not detected at analytical detection limit.
NR - Not run.
NS - No standard.

TABLE 3 (Page 1 of 3)

SEDIMENT SAMPLE DATA SUMMARY (AUGUST 1992)

Target Rock NYSDEC I.D. No. 152119

PARAMETER	TRSED-1	MS TRSED-1	MSD TRSED-1
VOLATILE ORGANICS (mg/kg)			
Methylene chloride	0.002 b j	0.002 b j	0.003 b j
Acetone	0.006 b j	0.006 b j	0.007 b j
Tentatively Identified Compounds			
Unknown hydrocarbon	0.021(3) j	NR	NR
Unknown polycyclic hydrocarb	0.008 j	NR	NR
Unkown cyclohexanes	0.031(2) j	NR	NR
Unknown dimethyl-cyclooctane	0.018 j	NR	NR
SEMIVOLATILE ORGANICS (mg/kg)			
Phenanthrene	0.029 j	0.046 j	0.045 j
Fluoranthene	0.036 j	0.063 j	0.079 j
Pyrene	0.039 j	*	*
bis(2-Ethylhexyl)phthalate	0.650	0.920	1.600
Tentatively Identified Compounds			
Undecane	0.340 j	NR	NR
Dodecane	0.250 j	NR	NR
Tridecane	0.230 j	NR	NR
Tetradecane	0.280 j	NR	NR
Pentadecane	0.280 j	NR	NR
Hexadecane	0.310 j	NR	NR
Heptadecane	0.520 j	NR	NR

* - Spiking compound;data not representative of actual sample concentration.
( ) - Number of compounds in total.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.
MS - Matrix spike.
NR - Not run.
MSD - Matrix spike duplicate.

TABLE 3 (Page 2 of 3)

SEDIMENT SAMPLE DATA SUMMARY (AUGUST 1992)

Target Rock NYSDEC I.D. No. 152119

PARAMETER	TRSED-1	MS TRSED-1	MSD TRSED-1
SEMIVOLATILE ORGANICS (mg/kg)			
Tentatively Identified Compounds			
Pentadecane, 2,6,10,14-tetra	0.350 j	NR	NR
Octadecane	0.380 j	NR	NR
Hexadecane, 2,6,10,14-tetram	0.480 j	NR	NR
Nonadecane	0.370 j	NR	NR
Unknown alkane	1.830 (5) j	NR	NR
Tetracosane	0.420 j	NR	NR
Unknown polycyclic hydrocarb	1.690 (3) j	NR	NR
PESTICIDES/PCBs (mg/kg)			
4,4'-DDT	0.0017 j	*	*
alpha-Chlordane	0.0015 j p	0.0018 j p	0.0016 j p
gamma-Chlordane	0.0010 j	0.0012 j p	0.0011 j p

* - Spiking compound; data not representative of actual sample coricentration.
( ) - Number of compounds in total.
j - Estimated concentration; compound present below quantitation limit.
p - Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.
MS - Matrix spike.
NR - Not run.
MSD - Matrix spike duplicate.

TABLE 3 (Page 3 of 3)

SEDIMENT SAMPLE DATA SUMMARY (AUGUST 1992)

Target Rock NYSDEC i.D. No. 152119

PARAMETER	TRSED-1	DUP TRSED-1
TAL METALS (mg/kg)		
Aluminum	670	646
Antimony	ND	ND
Arsenic	ND	0.43 B
Barium	4.9 B	0.49 B
Beryllium	ND	ND
Cadmium	ND	ND
Calcium	240 B	214 B
Chromium	16.8	16.1
Cobalt	15.2	13.5
Copper	61.7	66.0
Iron	1,280	1,380
Lead*	8.4 N	10.0
Magnesium	205 B	251 B
Manganese	7.7	9.7
Mercury	ND	ND
Nickel	55.0	61.1
Potassium	291 B	351 B
Selenium	ND	ND
Silver	ND	0.44 B
Sodium	ND	ND
Thallium	ND	ND
Vanadium	3.2 B	3.9 B
Zinc	38.6 E	42.6
Cyanide	ND	ND

* - Due to elevated matrix spike recovery (154.5%) and poor duplicate correlation, reported concentrations for this element should be interpreted as estimated.

B - Value is less than contract-required detection limit but greater than instrument detection limit.

E - Value estimated due to interference.

N - Spiked sample recovery not within control limits.

ND - Not detected at analytical detection limit.

DUP - Duplicate sample analysis.

groundwater. At this location, the bottom of the catch basin intersects the groundwater table (Reference 1, Figure 4-6). The surface water in the catch basin exceeds the class GA groundwater standards for 1,1,1-trichloroethane and dichloroethylene. There are no current active sources on the site; the contamination appears to be limited to a groundwater plume identified during this investigation (Reference 1).

4 GROUNDWATER PATHWAY

4.1 Hydrogeology

The site is underlain by three aquifers and a single confining unit. The oldest unconsolidated deposits at the site are Cretaceous in age and collectively known as the Raritan Formation and the Magothy Formation (Reference 1, Figure 4-1).

The Raritan Formation is composed of the Lloyd Sand Member, a sand and gravel in a clayey matrix. The material is poorly to moderately permeable, with an average horizontal hydraulic conductivity of 40 ft/day and is known as the Lloyd Aquifer. This unit is confined by the overlying unnamed clay member, which has an average vertical hydraulic conductivity of approximately 0.001 ft/day (Reference 4).

Located above the Raritan Formation is the Magothy Aquifer, which constitutes the principal aquifer for public water supply on Long Island (Reference 1, p. 4-5). The water in this aquifer is unconfined in the uppermost parts and confined in other areas. The Magothy is almost entirely recharged by downward leakage of water from the upper glacial aquifer.

The average horizontal hydraulic conductivity of the Magothy is 50 ft/day; the vertical hydraulic conductivity is 0.5 ft/day (Reference 1, p. 4-5). At the Target Rock site the Magothy and upper glacial aquifers are in direct contact. The much lower hydraulic conductivity of the upper Magothy would tend to slow downward movement of a contaminant.

At the Target Rock site the Magothy Aquifer is mantled by the upper glacial aquifer. This aquifer, approximately 20 to 40 ft thick at the site, consists of Pleistocene outwash sands and gravels that tend to fine with depth. Generally, the upper 30 ft of material is a tan sand and gravel that grades into a laminated sand layer of variable thickness. The outwash sands and gravels are moderately to highly permeable, with an average horizontal hydraulic conductivity of 270 ft/day and vertical hydraulic conductivity of 27 ft/day (Reference 1, p. 4-5). Generally, groundwater is encountered at approximately 8 ft below grade.

4.2 Targets

Groundwater within 4 miles of the site is used as a source of drinking water for private and publicly owned water supply companies (Reference 1, p. 4-6). The site falls within the East Farmingdale Water District, which currently serves approximately 7850 users with up to 11 mgd. (Reference 1, p. 4-6). All private residences are tied into the public water supply system, but private individual wells may still be used to water lawns and gardens.

Most of the upper glacial aquifer, where these shallow private wells are completed, contains elevated levels of detergents and the water within it is not fit for potable use. For scoring purposes the population near the Target Rock site is not included as a receptor for two reasons: (1) the entire area has been provided with public water for a number of years and the water in the upper glacial aquifer is generally unfit to drink, and (2) all the supply wells completed in the area have production zones that are between 500 and 600 ft below the ground surface. This tends to isolate these areas of the aquifer from the shallow contaminated flow system. This is especially true if the site does not fall with the primary recharge area of the deep flow system as is the case with the Target Rock site.

4.3 Sample Locations

Groundwater samples were collected from four on-site monitoring wells, each of which was completed at the bottom of the upper glacial aquifer (Figure 1). Wells ranged from 30 to 45 ft in depth and all were high yielding (Reference 1, pp. 3-6 and 3-8).

4.4 Analytical Results

1,1,1-Trichloroethane was identified in TRMW-2 and -4 (Table 4). Both were above the class GA groundwater standard of 5 μg/l. TRMW-4, downgradient of the former dry well, contained 66 μg/l. TRMW-2 contained 43 μg/l; the source of contamination in this well unknown, but it is not believed to be from the former dry well since the TRMW-2 location is cross gradient of the former dry well location (Reference 1, P.4-12).

4.5 Conclusions

The original source of the contamination at the Target Rock site was removed in September 1983 (Reference 1, p. 4-2). The data collected during this site inspection did not identify a continuing on- site source; for scoring purposes, the waste volume will be assumed to be 1500 gal, based on the estimated wastewater production rate and concentration. The groundwater contamination at the site is directly attributed to past site activities.

5 SURFACE WATER PATHWAY

5.1 Hydrology

The Target Rock site is located in the southern outwash plain of Long Island, approximately 6 miles north of South Oyster Bay, on relatively flat land that gently slopes off to the south. The site is located outside the 500-year floodplain. The closest surface water bodies are shallow recharge basins, which, on occasion, are totally dry. Most of the site is paved or covered with buildings; the runoff from these areas is directed to catch basins that are in direct contact with the groundwater. Only during heavy rain events does runoff from the pavement and buildings reach the recharge basin located just east of the site. The recharge basin does not have an outlet and any surface water that reaches it either evaporates or infiltrates to the groundwater. Because the recharge basin is closed, the surface water pathway ends there, and all surface water infiltrates to become groundwater.

TABLE 4 (Page 1 of 3)

GROUNDWATER SAMPLE DATA SUMMARY (AUGUST 1992)

Target Rock NYSDEC I.D. No. 152119

PARAMETER	TRMW-1	TRMW-2	TRMW-3	TRMW-4	MS TRMW-4	MSD TRMW-4	(Blind dup of TRMW-3) TRMW-5	FIELD BLANK 8/27/92	NYSOEC CLASS GA STANDARDS
VOLATILE ORGANICS (pg/l)									
Methylene chloride	1 b j	1 b j	2 b j	2 b j	1 b j	2 b j	2 b j	1 b j	5.0
Acetone	4 b j	4 b j	5 b j	11 b	8 b j	11 b	4 b j	4 b j	NS
Carbon disulfide	ND	ND	ND	15	14	14	ND	ND	NS
1,1-Dichloroethylene	ND	ND	ND	2 j	*	*	ND	ND	5.0
1,1-Dichloroethane	ND	2 j	ND	1 j	1 j	1 j	ND	ND	5.0
1,2-Dichloroethylene (total)	ND	ND	ND	4 j	4 j	4 j	ND	ND	5.0
Chloroform	ND	ND	ND	1 j	1 j	1 j	ND	ND	7.0
1,1,1-Trichloroethane	ND	43	4 j	66	60	60	3 j	ND	5.0
Trichloroethylene	ND	ND	ND	8 j	*	*	ND	ND	5.0
Tetrachloroethylene	ND	ND	ND	3 j	2 j	ND	ND	ND	5.0
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	3 j	ND	ND	5.0
Tentatively Identified Compounds	ND	ND	ND	ND	ND	ND	ND	ND	-
SEMIVOLATILE ORGANICS (µg/l)									
bis(2-Ethylhexyl)phthalate	18 b	3 j	32 b	26	41	23	26 b	NR	50

* - Spiking compound; data not representative of actual sampie concentration.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.
MS - Matrix spike.
ND - Not detected at analytical detection limit.
NR - Not run.
NS - No standard.
MSD - Matrix spike duplicate.

TABLE 4 (Page 2 of 3)

GROUNDWATER SAMPLE DATA SUMMARY (AUGUST 1992)

Target Rock NYSDEC I.D. No. 152119

PARAMETER	TRMW-1	TRMW-2	TRMW-3	TRMW-4	MS TRMW-4	MSD TRMW-4	(Blind dup of TRMW-3) TRMW-5	FIELD BLANK (8/27/92)	NYSDEC CLASS GA STANDARDS
SEMIVOLATILE COMPOUNDS (pg/l)									
Tentatively Identified Compounds									
Hexadecane	19 j	4 j	37 j	45 j	NR	NR	27 j	ND	50 GV
Heptadecane	39 j	8 j	57 j	87 j	NR	NR	59 j	ND	50 GV
Pentadecane, 2,6,10,14-tetra	10 j	2 j	14 j	14 j	NR	NR	14 j	ND	50 GV
Octadecane	37 j	8 j	56 j	92 j	NR	NR	56 j	ND	50 GV
Nonadecane	33 j	7 j	50 j	83 j	NR	NR	45 j	ND	50 GV
Eicosane	20 j	4 j	29 j	51 j	NR	NR	27 j	ND	50 GV
Unknown aliphatic	ND	5 j	ND	ND	NR	NR	ND	3 b j	50 GV
Unknown	35 (5) j	27 (3) j	51 (4) j	46 (2) j	NR	NR	48 (4) j	24 b j	50 GV
Phenol, 4,4'-butylidenebis[2	22 j	4 j	36 j	59 j	NR	NR	34 j	ND	50 GV
Pentadecane	ND	ND	8 j	10 j	NR	NR	ND	ND	50 GV
Unknown alkane	10 (2) j	ND	11 j	43 (4) j	NR	NR	8 j	ND	50 GV
Cyclohexane, undecyl-	4 j	ND	7 j	11 j	NR	NR	ND	ND	50 GV
Hexadecane, 2,6,10,14-tetram	10 j	ND	16 j	24 j	NR	NR	15 j	ND	50 GV
Unknown aliphatic aldehyde	ND	ND	ND	17 j	NR	NR	8 j	ND	50 GV
Heneicosane	6 j	ND	9 j	17 j	NR	NR	9 j	ND	50 GV
Unknown aliphatic esters	32 (3) j	ND	93 (4) j	57(2) j	NR	NR	143 (5) j	ND	50 GV
Benzenesulfonamide, n-butyl-	ND	ND	ND	ND	ND	ND	ND	76 j	50 GV
PESTICIDES/PCBs (pg/l)	ND	ND	ND	ND	ND	ND	ND	ND	-
CONVENTIONALS (mg/l)									
Total dissolved solids	160	120	40	95	NR	NR	130	ND	NS
Total suspended solids	110	64	5.3	4.9	NR	NR	6.1	ND	NS
Chemical oxygen demand	27.4	<5	<5.0	10.0	NR	NR	<5.0	ND	NS

( ) - Number of compounds in total.
b - Found in associated blanks.
j - Estimated concentration; compound present below quantitation limit.
GV - Guidance value.
MS - Matrix spike.
ND - Not detected at analytical detection limit.
NR - Not run.
NS - No standard.
MSD - Matrix spike duplicate.

GROUNDWATER SAMPLE DATA SUMMARY (AUGUST 1992)

Target Rock NYSDEC I.D. No. 152119

PARAMETER	FILTERED TRMW-1	TRMW-1	TRMW-2	TRMW-3	TRMW-4	DUP TRMW-4	(Blind dup of TRMW-3) TRMW-5	FIELD BLANK-1 (8/27/92)	NYSDEC CLASS GA STANDARD	ATURAL GW AMBIENT RANGES (n)
TAL METALS (µg/l)										
Aluminum	475	57.1 B	306	97.7 B	77.3 B	62.7	104 B	33.9 B	NS	<5.0 - 1,000
Antimony	ND	26.8 B	ND	ND	36.6 B	ND	ND	ND	3.0 GV	-
Arsenic	ND	ND W	ND W	ND W	ND W	ND	ND W	ND	25	<1.0 - 30
Barium	49.6 B	41.8 B	27.5 B	ND	30.7 B	31.3 B	ND	ND	1,000	10 - 500
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	3.0 GV	<10
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	10	<1.0
Calcium	23,200	22,300	12,400	18,400	7,660	7,740	18,500	ND	NS	,000 - 150,000
Chromium	5.3 B	ND	1.6 B	ND	ND	ND	1.9 B	ND	50	<1.0 - 5.0
Cobalt	6.7 B	ND	ND	ND	ND	ND	ND	ND	NS	<10
Copper	6.9 B	ND	4.1 B	9.2 B	2.9 B	3.1 B	11.2 B	ND	200	<1.0 - 30
Iron	443	69.1 B	329	130	68.0 B	77.0 B	141	45.7 B	300 (m)	10 - 10,000
Lead	3.3	1.6 B	3.0	2.7 B	1.3 B	1.2 B	2.5 B	ND	25	<15
Magnesium	4,640 B	4,540 B	3,550 B	4,730 B	2,770 B	2,820 B	4,740 B	ND	35,000 GV	1,000 - 50,000
Manganese	8,060	7,610	21.8	2,230	21.3	21.2	2220	ND	300 (m)	<1.0 - 1,000
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	2.0	<1.0
Nickel	ND	ND	ND	ND	ND	ND	ND	ND	NS	<10 - 50
Potassium	5,720	6,120	3,480 B	3,830 B	2,890 B	2,660 B	5,370	ND	NS	1,000 - 10,000
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	10	<1.0 - 10
Silver	3.7 B	3.9 B	2.5 B	ND	3.9 B	3.2 B	4.8 B	2.5 B	50	<5.0
Sodium	17,800	17,400	25,900	22,300	26,300	26,400	22,000	ND	20,000	500 - 120,000
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	4.0 GV	-
Vanadium	4.2 B	ND	ND	ND	ND	ND	ND	ND	NS	<1.0 - 10
Zinc	47.3	35.8	65.6	64.0	90.2	91.2	60.5	19.0 B	300	<10 - 2,000
Cyanide	ND	NR	ND	ND	ND	ND	ND	ND	100	

(m) - Iron and manganese not to exceed 500 pg/l.
(n) - Ref. 19.
B - Value is less than contract-required detection limit but greater than instrument detection limit.
W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.

GV - Guidance value.
ND - Not detected at analytical detection limit.
NR - Not run.
NS - No standard.
DUP - Duplicate sample analysis.

5.2 Targets

Long Island is served exclusively by groundwater sources; there are no surface drinking water intakes in the area (References 5 and 6). The two surface water bodies near the site do not contain any populations of fish or other game species. The site does not fall within a wellhead protection area, but several wellhead protection areas found north of the site, including the primary recharge, are of the Magothy Aquifer (References 4 and 7).

5.3 Sample Locations

A single surface water sample was taken from the catch basin near the drum storage area (Figure 1) during a low-flow period. During high flows at times of heavy rain, the catch basins discharge to the recharge basin east of the site.

5.4 Analytical Results

A single surface water sample was taken from the catch basin and analyzed for TCL volatile organics, TCL pesticides/PCBs, and TCL semivolatiles. The surface water sample contained 20 μg/l of 1,1,1-trichloroethane and 1,1-dichloroethylene, below the quantitation limit (Table 4). A number of semivolatile organic TICs were also found in the sample (Table 2).

5.5 Conclusions

Surface water runoff from the site does not present a threat to the surrounding environment or public health as it quickly infiltrates or is in direct contact with the groundwater.

6 SOIL EXPOSURE AND AIR PATHWAYS

6.1 Physical Conditions

The areas of the former dry well and catch basin are generally inaccessible to nonworkers at the site. The entire Target Rock facility is surrounded by chain-link fence and entrance to the site is permitted for authorized personnel only. There are approximately 200 full-time employees at the site (Reference 1, p. 4-7). The area of the former dry well has been excavated and filled with clean fill; the area has a well established cover of grass. The catch basins east of the drum storage area are covered with heavy metal grates and the water surface is generally 8 ft below the ground surface. During heavy rain the catch basins fill and form puddles on the paved surfaces.

6.2 Soil and Air Targets

The residence nearest to the Target Rock site is 558 ft to the south in a residential area along Alexander Avenue. There are approximately 509 people within 0.25 mile of the site; 546 people within 0.25 to 0.5 mile; 6176 people within 0.5 to 1 mile of the site; 31,742 within 1 to 2 miles; and 55,538 within 2 to 3 miles. The total population within a 4-mile radius of the

site is 91,159 (Reference 8). The nearest school, State University Agricultural and Technical Instimte, is located 933 ft north-northwest of the site (Reference 9).

The closest wedand is a Federally designated wedand located 166 ft north-northeast of the site. The closest NYSDEC wetland is located between 1 and 2 miles from the site. There are nine wetlands 0.5 to 1 mile from the site, 26 1 to 2 miles from the site, 69 2 to 3 miles from the site, and 114 3 to 4 miles from the site (Reference 10). Besides the occasional transient individual there are no Federally listed or proposed endangered species within 4 miles of the site (Reference 11). The nearest New York State significant habitat is located approximately 4200 ft from the site (exact location and species are confidential information) (Reference 12).

6.3 Soil Sample Location

The single soil sample collected during the SI is described as a waste source sample, discussed previously in Section 3.1.

6.4 Soil Analysis Results

The results of the single soil sample were discussed previously as a waste source sample in Section 3.2.

6.5 Air Monitoring

Air monitoring was conducted using an OVA combustible gas indicator (CGI) and an HNu photoionization meter during the SI. No measurements above background were observed (Reference 1).

6.6 Conclusions

The access to the site is limited to workers only; however, the site is located very close to a residential area. Soil testing and air monitoring did not identify any hazardous waste that would indicate a release to the air or soil pathway. There is no indication of a release to the air pathway.

7 SUMMARY AND CONCLUSIONS

The Target Rock Corporation site inspection gathered the data necessary to evaluate the site as a candidate for NPL consideration. A soil sample, a surface water/sediment sample, and groundwater samples were collected and analyzed to confirm the presence of chlorinated organic solvents and other organic compounds associated with past disposal practices at the facility.

8 SITE SCORE

The prescore for this site, 0.57, was obtained using Prescore Software Version 2.0, May 1993. This score does not represent a score for the former dry well as no source could be identified

identified at the site. This score was calculated for a groundwater contaminant plume that originates at the Target Rock site.

REFERENCES CITED

[1] Lawler, Matusky & Skelly Engineers (LMS). 1992. Phase II investigation report, Target Rock Corporation.

[2] U.S. Environmental Protection Agency (EPA). 1993. Information obtained from the Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS) GEOSEARCH data base regarding records of facilities within a 5-mile radius of the Target Rock site.

[3] U.S. Geological Survey (USGS) Maps:

USGS Quadrangle Map, Amityville, NY, 1969, photorevised 1979
USGS Quadrangle Map, Huntington, NY, 1967
USGS Quadrangle Map, Freeport, NY, 1969
USGS Quadrangle Map, Bayshore West, NY, 1969, photorevised 1979
USGS Quadrangle Map, Greenlawn, NY, 1967
USGS Quadrangle Map, Hicksville, NY, 1967

[4] Smolensky, D.A., H.T. Bukton, and P.K. Shermoff. 1989. Hydrologic framework of Long Island, New York. Department of the Interior USGS Hydrologic Investigations Adas HA-709.

[5] Well Count Database, National Waterworks Associations Water District.

[6] Letter from George Veilson, East Farmingdale Water District, to Michael Lehtinen, LMS, regarding sources of information about well operations in vicinity of the Target Rock site.

[7] New York State Department of Environmental Conservation (NYSDEC). 1990. New York State Wellhead Protection Program. Submitted to EPA.

[8] Lawler, Matusky & Skelly Engineers (LMS). 1993. LMS GIS table listing of population in the vicinity of the Target Rock site. Based on data from the U.S. Census of Population and Housing, 1990.

[9] Lawler, Matusky & Skelly Engineers (LMS). 1993. Listing of wetiands, school, residence, habitat, and well nearest the Target Rock site. Based on data from NWI Fish and Wildlife Service topographical map, USGS topographical map, LMS (1992), and NYSDEC NY Natural Heritage Program.

[10] Lawler, Matusky & Skelly Engineers (LMS). 1993. Table listing of wetiands in the vicinity of the Target Rock site. Produced by LMS' Geographical Information System using data from National Wetiands Inventory (NWI) Maps and NYSDEC wetiand maps.

REFERENCES CITED
(Continued)

[11] Letter from Mark W. Clough (acting for Leonard P. Corin), U.S. Department of the Interior, to Michael Lehtinen, LMS, regarding Federally listed or proposed endangered or threatened species in the vicinity of the Target Rock other sites.

[12] Letter from Burrell Buffington, NYSDEC, to Michael Lehtinen, LMS, regarding rare plants, animals, and namral communities in the vicinity of the Target Rock site.

REFERENCE 1

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE II INVESTIGATION

Target Rock Corporation Site No. 152119
Town of Babylon Suffolk County

DATE: November 1993

Report

Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, *Commissioner*

Division of Hazardous Waste Remediation
Michael J. O'Toole, Jr., P.E., *Director*

By:

Lawler, Matusky & Skelly Engineers

REFERENCE 2

Mike Maw
Allen
7/7/93

2400

TELENET
914 15M

TERMINAL=

@c 70374

703 74 CONNECTED
E

Interactive Systems, Inc. VAX 8650 VMS V5.4-2 Node AMSVXA

Username: cisll6371
Password: ##HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXlmsePassword: @@@@@@@@@@@@@@
    Last interactive login on Thursday, 24-JUN-1993 08:46

CIS (Version 5.0)   7-JUL-1993 12:27:14.12

                    Welcome to
            The Chemical Information System
                    as provided by
                      CIS, Inc.

       CIS USER SUPPORT HOTLINE NUMBERS

Continental USA (except MD):   800-CIS-USER
Other North America and MD: 410-321-8440
Europe (in UK): 0625-876711   (outside UK): 44-625-876711
Japan: 03(5641)1771

Recent NEWS for the CIS . . .

 02 Jul 93; Significant Block Of Data Added To ENVIROFATE Database
 02 Jul 93; CERCLIS Hazardous Waste Site Database Updated
 01 Jun 93; New ChemHazIS Database Now Available On The CIS
 24 May 93; RTECS Updated - Now Corresponds To April, 1993 NIOSH Files
 24 May 93; Regular Monthly Update To REGMAT Database Complete
 17 May 93; BAKER Database Updated, Contains Latest Version of MSDSs
 17 May 93; EPA'S DOCKET Database Of Civil Cases Updated
 14 May 93; Regular Quarterly Update Made To IRIS Database
 14 May 93; Regular Quarterly Update Made To CROPPRO Database
 07 May 93; Potentially Responsible Party Data In CERCLIS Updated

Type NEWS at next prompt to display messages.

7
Enter database name (or H for HELP): finds

FINDS - Version 5.00/1.08 (March, 1993)   ($125/Hr.)

Latest Database Update: April, 1993

Latest news for FINDS . . .
 21 Apr 93; Regular Quarterly Update Made to FINDS Database

Option? epaid/nyd002034056
Working...   Working...
File: 1   Count: 1

Option? t 1/2/1

File: 1 Entry: 1

FINDS Accession Number NYD002034056

(EPAID)   EPA ID: NYD002034056
(REG)   Region: 02

(ID)   SITE IDENTIFICATION INFORMATION:

          Primary Name:
            (NAME)   TARGET ROCK CORPORATION
            (STREET)   1966E BROAD HOLLOW ROAD
            (CITY)   FARMINGDALE
            (STATE)   NY
            (ZIP)   11735
            (COUNTY)   NASSAU
(CNTYCD) County Code: 059
(OWNER)   Ownership Indicator: P
(SIC)   Standard Industrial Classification(s): 3491
(LUPD)   Last Update Date: 10-05-92

(SRC)   Source:

Acronym |ID

```
-----------------------------------------
CERCLIS         |NYD002034056
RCRIS           |NYD0020340S6


Option? go cerclis


CERCLIS - Version 5.00/1.20 (June, 1993)                    ($95/Hr.)

Latest Database Update: June, 1993      (Hazardous Waste Sites)
                        March, 1993     (Potentially Responsible Parties)


Latest news for CERCLIS . . .
 2 Jul 93; Regular Quarterly Update Made To CERCLIS Database


Option? t 1/2prp1/1
Invalid format file or report name: 2^PRPL


Option? t 1/prpl/1

File   1 is being converted to local identifiers.
Conversion to local identifiers resulted in      1 unique occurrences.


Conversion Entry:      1

CERCLIS Accession Number  NYD002034056

(EPAID)   EPA ID: NYD002034056
(REG)     Region: 02

(ID)      SITE IDENTIFICATION INFORMATION:

          Primary Name:
            (NAME)       TARGET ROCK CORPORATION
            (STREET)     1966E BROAD HOLLOW ROAD
            (CITY)       FARMINGDALE
            (STATE)      NY
            (ZIP)        11735
            (COUNTY)     NASSAU
            (LAT)        40 deg. 44 min. 43.0 sec.
            (LONG)       073 deg. 25 min. 47.0 sec.
            (LLSRC)      R
            (DESC)       ACTIVE MACHINE SHOP; ACTUALLY LOCATED IN SUFFOLK;
                         LAND CURRENTLY DEEDED TO SUFF. CO. INDUSTRIAL
                         DEVELOPMENT AGENCY; WASTEWATER CONTAINING SOLVENTS
                         WAS DISCHARGED INTO DRYWELL.
          Alias Name:
            (NAME)       TARGET ROCK CORPORATION
            (CITY)       NASSAU
            (STATE)      NY
            (LAT)        40 deg. 44 min. 43.0 sec.
            (LONG)       073 deg. 25 min. 47.0 sec.
(CNTYCD)  County Code: 059
(CONGDS)  Congressional District: 02
(FED)     Federal Facility Indicator: N
(FEDDOC)  Federal Docket: N
(OWNER)   Ownership Indicator: CO
(SMSA)    Standard Metropolitan Statistical Area: 5380
(CLASS)   Classification: ND
(LUPD)    Last Update Date: 11-13-92
(STAT)    Status: N
(USGSHU)  US Geological Survey Hydrologic Unit: 02030202

(O1)      OPERATIONS INFORMATION:

          (OPUN)    Operable Unit: SITE EVALUATION/DISPOSITION

          (OPDATA)  Operable Unit Data:

                    CUR PLAN CUR PLAN ACTUAL   CUR PLAN CUR PLAN ACTUAL
          EVENT EVENT START    START    START    COMPLETE COMPLETE COMPLETE
          TYPE  LEAD  DATE     QUARTER  DATE     DATE     QUARTER  DATE
          ---------------------------------------------------------------

          DS1   S                                                 06-24-87
          PAI   S                                                 03-17-88


Option? logoff

Your approximate total CIS session cost is $   4.18

CIS session terminated.  CIS116371    logged off.
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U.S. Geological Survey (USGS) Maps:

USGS Quadrangle Map, Amityville, NY, 1969, photorevised 1979
USGS Quadrangle Map, Huntington, NY, 1967
USGS Quadrangle Map, Freeport, NY, 1969
USGS Quadrangle Map, Bayshore West, NY, 1969, photorevised 1979
USGS Quadrangle Map, Greenlawn, NY, 1967
USGS Quadrangle Map, Hicksville, NY, 1967

REFERENCE 3

REFERENCE 4

DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

HYDROLOGIC FRAMEWORK OF LONG ISLAND, NEW YORK

By D.A. Smolensky, H.T. Buxton, and P.K. Shernoff

Prepared in cooperation with the
NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION,
NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS,
SUFFOLK COUNTY WATER AUTHORITY and DEPARTMENT OF HEALTH SERVICES

HYDROLOGIC INVESTIGATIONS ATLAS
Published by the Geological Survey, 1989

SMOLENSKY AND OTHERS—HYDROGEOLOGIC FRAMEWORK OF LONG ISLAND, NEW YORK 1:250,000 ATLAS HA-7

REFERENCE 5

Wellcount - County totals New York

~~ROCKLAND and NEW and YORK~~

990 CENSUS HOUSEHOLD WATER SUPPLY DATA: STATE AND COUNTY OR BOROUGH TOTALS
OR NEW YORK

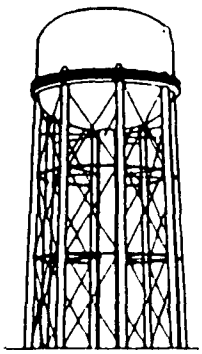
XPLANATION OF COLUMN HEADINGS

90 POP:	1990 POPULATION
90 HOUSE:	1990 NUMBER OF HOUSEHOLDS
UTILITY:	NUMBER OF HOUSEHOLDS SERVED BY A PRIVATELY OR PUBLICLY OWNED WATER SUPPLY COMPANY WHOSE SOURCE MAY BE SURFACE WATER, GROUND WATER, OR A COMBINATION.
DRILL:	NUMBER OF HOUSEHOLDS WITH A PRIVATE DRILLED WELL.
DUG:	NUMBER OF HOUSEHOLDS WITH A PRIVATE DUG WELL.
OTHER:	NUMBER OF HOUSEHOLDS WITH AN UNSPECIFIED SOURCE OF WATER (CISTERN, SPRING, CREEK, RIVER, LAKE, ETC.)

STATE TOTALS	90 POP	90 HOUSE	UTILITY	DRILL	DUG	OTHER
NY	17990460	7226903	6329430	703302	121040	73111
NTY TOTALS						
LBANY	276928	118689	109169	7658	1303	556
ALLEGANY	49333	21449	9115	9481	713	2140
RONX	1215997	445853	445367	190	71	224
ROOME	218314	90438	67970	20231	1190	1048
CATTARAUGUS	81522	35484	18734	13329	1074	2346
CAYUGA	79970	32265	21316	6949	2864	1134
HAUTAUQUA	141473	62533	41573	18102	1807	1054
CHEMUNG	93700	36754	26875	9032	667	177
CHENANGO	47821	20482	8461	9424	911	1685
LINTON	85127	31904	17093	10857	2494	1462
OLUMBIA	61209	28179	10246	15972	1489	472
CORTLAND	47388	18160	11317	5811	491	542
ELAWARE	43249	25214	8861	10585	925	4842
UTCHESS	261921	98904	58450	37078	2861	518
ERIE	965767	401656	383293	14581	2807	970
ESSEX	35273	20785	12549	3979	1584	2675
RANKLIN	49286	23136	11661	6177	3014	2283
ULTON	49919	25641	14124	7020	3846	651
GENESEE	59723	22480	12842	8340	1045	252
REENE	44780	24940	8112	14710	1104	1013
AMILTON	4674	7578	2861	2384	1211	1122
HERKIMER	63140	29539	17249	6950	2999	2339
EFFERSON	113075	51580	29525	15260	3736	3063
INGS	2300525	873626	871878	932	266	552
LEWIS	24446	12019	4381	3409	2758	1473
LIVINGSTON	60485	22376	13478	6168	1166	1562
ADISON	72162	27747	15347	9573	1361	1467
MONROE	715567	286152	279078	5930	858	284
MONTGOMERY	56674	23756	14339	6771	2160	486
NASSAU	1290662	447472	445480	1213	205	576
EW YORK	1478056	781491	780961	321	37	171
NIAGARA	228489	93049	91051	1536	427	35
ONEIDA	255233	103419	80084	15075	6407	1857
ONONDAGA	469649	191378	176007	11492	2294	1588
ONTARIO	93987	38636	26952	7838	2372	1472
ORANGE	299689	108033	74849	30144	2398	644

ORLEANS	41581	16223	8660	5880	1561	122
OSWEGO	121283	48309	23380	13757	10180	995
OTSEGO	63578	27902	11344	12688	1704	2164
PUTNAM	84500	32023	10099	19587	1989	349
QUEENS	1951044	752280	750971	806	114	389
RENSSELAER	152897	62171	39049	20180	1997	943
RICHMOND	378978	139727	139542	86	22	77
ROCKLAND	265477	88265	82049	5510	502	198
SARATOGA	178510	73320	47238	19745	4908	1427
SCHENECTADY	165869	68546	62535	4649	1113	246
SCHOHARIE	31107	13936	3855	7899	1260	925
SCHUYLER	17291	7537	2681	3784	575	493
SENECA	31204	13132	7615	3751	1046	718
ST. LAWRENCE	110880	46799	21594	18904	4340	1964
STEUBEN	98733	42733	21479	16185	1575	3494
SUFFOLK	1319298	480617	416544	57583	5825	660
SULLIVAN	70087	42505	15215	23298	2021	1968
TIOGA	52419	20389	7549	11797	695	350
TOMPKINS	96528	36398	22810	11282	1351	958
ULSTER	173100	74402	31773	36959	3952	1713
WARREN	61198	32515	19343	8258	2536	2379
WASHINGTON	60382	24620	10008	11229	1967	1410
WAYNE	92445	36416	24488	7160	3411	1359
WESTCHESTER	870903	335027	316323	16716	1485	502
WYOMING	42031	15649	8124	5990	933	599
YATES	23924	12665	4514	5117	1063	1974

REFERENCE 6



EAST FARMINGDALE WATER DISTRICT

72 GAZZA BLVD.
FARMINGDALE, N.Y. 11735

249-4211

JOHN FERRARI, SUPERINTENDENT
GEORGE VEILSON, PLANT SUPERVISOR

TOWN OF BABYLON
TOWN BOARD, COMMISSIONERS

July 27, 1993

Mr. Michael Lehtinen
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza
P. O. Box 1509
Pearl River, NY 10965

Dear Mr. Lehtinen:

In response to your request, enclosed is a district map of the East Farmingdale Water District with our well fields marked on the map.

If we can be of further assistance to you, please do not hesitate to call.

Very truly yours,

George Veilson
Water Plant Supervisor

GV/cm
Encl.

M R George Veilson OF E. Farmingdale water District

516 - 249 - 4211

MEMORANDUM OF CONVERSATION

JOB: TArget Rock DATE: 8 July 93

JOB NUMBER: 526-054 TIME: 1030

CONCERNING: Drinking water

AND DECIDED:

The site falls in the E. Farmingdale water district. Entire area is served by Ground water sources

They Have several wells Near the TArget Rock Site. He will send LMS well information if we send him a Site plan

Long Island is served by groundwater sources there are NO surface water drinking supplys in the Long Island AreA

CC: SIGNED: M. Lawler

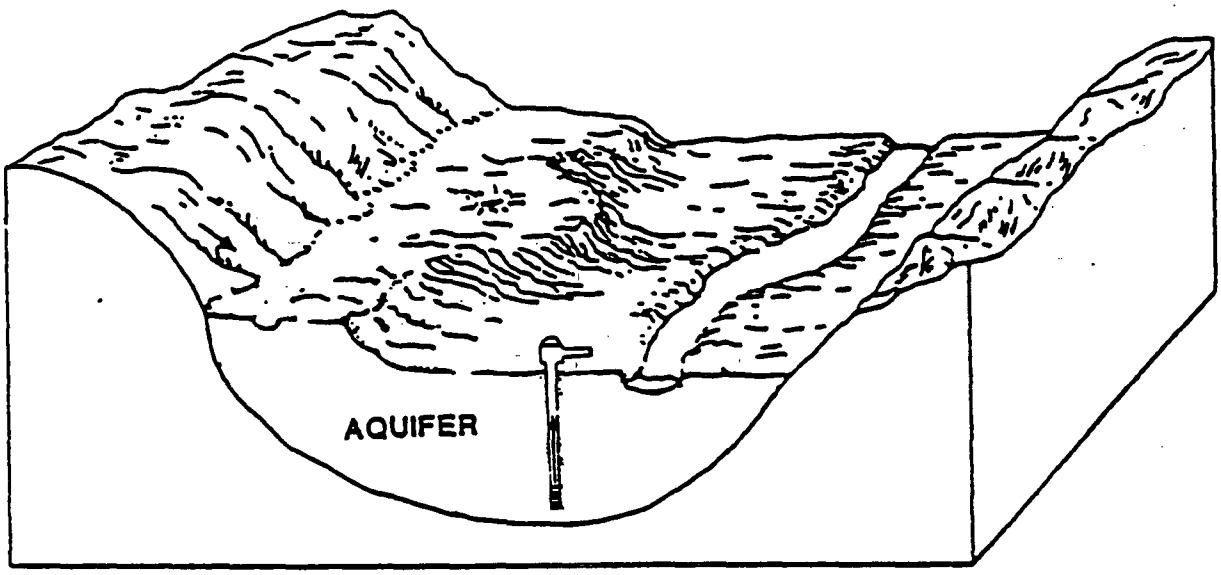
CC: SIGNED:

LMS Lawler, Matusky & Skelly Engineers

REFERENCE 7

Department of Environmental Conservation

NEW YORK STATE WELLHEAD PROTECTION PROGRAM



Submittal
to
United States Environmental Protection Agency

New York State Department of Environmental Conservation
MARIO M. CUOMO, *Governor* THOMAS C. JORLING, *Commissioner*

September *1990*

TABLE 3.1.
WELLHEAD PROTECTION AREA
DELINEATION SUMMARY

Geographic Region	Aquifer Area	Wellhead Protection Area Baseline Delineation
Long Island	Magothy & Lloyd Aquifers	Deep Flow Recharge Area
	Glacial Aquifer	Simplified Variable Shape: 1,500 ft. radius upgradient 500 ft. radius downgradient
Upstate	Unconsolidated Aquifers	Aquifer Boundaries (land surface)
	Bedrock Aquifers	Fixed Radius: 1,500 ft. radius

numerous 3 to 12 square mile WHPA's (1-2 mile radius) for non-community wells intersect or nearly intersect across the State. It must be recognized that all fresh groundwaters in bedrock aquifers are classified as GA groundwaters and thus are already protected by substantial statewide protection programs which use rigorous ambient water quality standards in their design.

3. Mapping and Case Studies:

Mapping will be performed according to the phasing priorities described in Section 3.3. Case studies of fixed radius approaches are not considered to be of significant benefit. As proposals for revisions based on alternative approaches are submitted to the Department of Environmental Conservation, they will be evaluated for potential use as models for comparable hydrogeologic conditions.

4. Public Water Supply Significance:

Relatively few municipal community systems utilize bedrock aquifers in New York State and those that do are generally with low population dependence. Public water supplies in bedrock aquifers are typically non-community wells serving small numbers of people.

Magothy and Lloyd Aquifers - Long Island

1. WHPA Definition:

The boundaries of the wellhead protection area for public water supplies using the Magothy and Lloyd aquifers are the boundaries of the Deep Flow Recharge Area as recognized by the Department of Environmental Conservation. Refinements within the overall WHPA may include further definition of Wellfield Management Areas, pending approval by the Department of Environmental Conservation.

2. Rationale:

The Deep Flow Recharge Area was determined to be the most important overall groundwater protection area for wells in the Magothy and Lloyd aquifers in the Long Island Groundwater Management Program already adopted and certified by the Governor of New York as an element of the New York State Water Quality Management Program. The delineations have also been adopted in the Suffolk County Sanitary Code.

3. Mapping and Case Studies:

Mapping of the Deep Flow Recharge Area is already completed. Additional case studies are not considered appropriate.

4. Public Water Supply Significance:

Most public water in Nassau County is withdrawn from the Magothy aquifer. The majority of public water supplies in Suffolk County are also withdrawn from the Magothy aquifer. Of those public water supplies in Suffolk County utilizing the Glacial aquifer, approximately half are located within the Deep Flow Recharge Area. Thus, these wells are included within the overall wellhead protection area for the deeper aquifers.

Glacial Aquifer - Long Island

1. WHPA Definition:

The boundaries of the wellhead protection area for public water supplies using the Glacial aquifer are defined as a fixed variable shape zone with a fixed radius in the upgradient groundwater flow direction of 1,500 feet and a fixed radius in the downgradient direction of 500 feet. Revisions may be made, pending approval by the Department of Environmental Conservation.

REFERENCE 8

POPULATION COUNT

Target Rock Corporation, Babylon, NY

RADIUS (Miles)	POPULATION
0 - 0.25	509
0.25 - 0.5	546
0.5 - 1	6,176
1 - 2	31,742
2 - 3	55,538
3 - 4	91,159
Total	185,670

Reference:

Census of Population and Housing, 1990: Summary Tape File 1A on CD-ROM (New York). Machine-readable data file. Prepared by the Bureau of the Census - Washington: The Bureau [producer and distributor], 1991.

These data were processed through LMS' Geographic Information System (GIS).

REFERENCE 9

TARGET ROCK CORPORATION
Babylon, NY

NEAREST:

Wetland:	166 ft NNE
	Palustrine, Open water, semipermanently flooded, excavated (POWFx) 333,333 ft^2 or 7.6 acres
Reference:	NWI Map - Amityville Quadrangle, Photorevised June 1981
School:	933 ft NNW - State University Agricultural and Technical Institute
Reference:	USGS 7.5-min Quadrangle, Amityville, NY, Photorevised 1979
Residence:	558 ft S
Reference:	USGS 7.5-min Quadrangle, Amityville, NY, Photorevised 1979
Habitat:	4767 ft SW of site (considered sensitive information)
Reference:	NYSDEC NY Natural Heritage Program, 27 June 1993
Well:	Public: 0.45 mile to NE
Reference:	East Farmingdale Water District

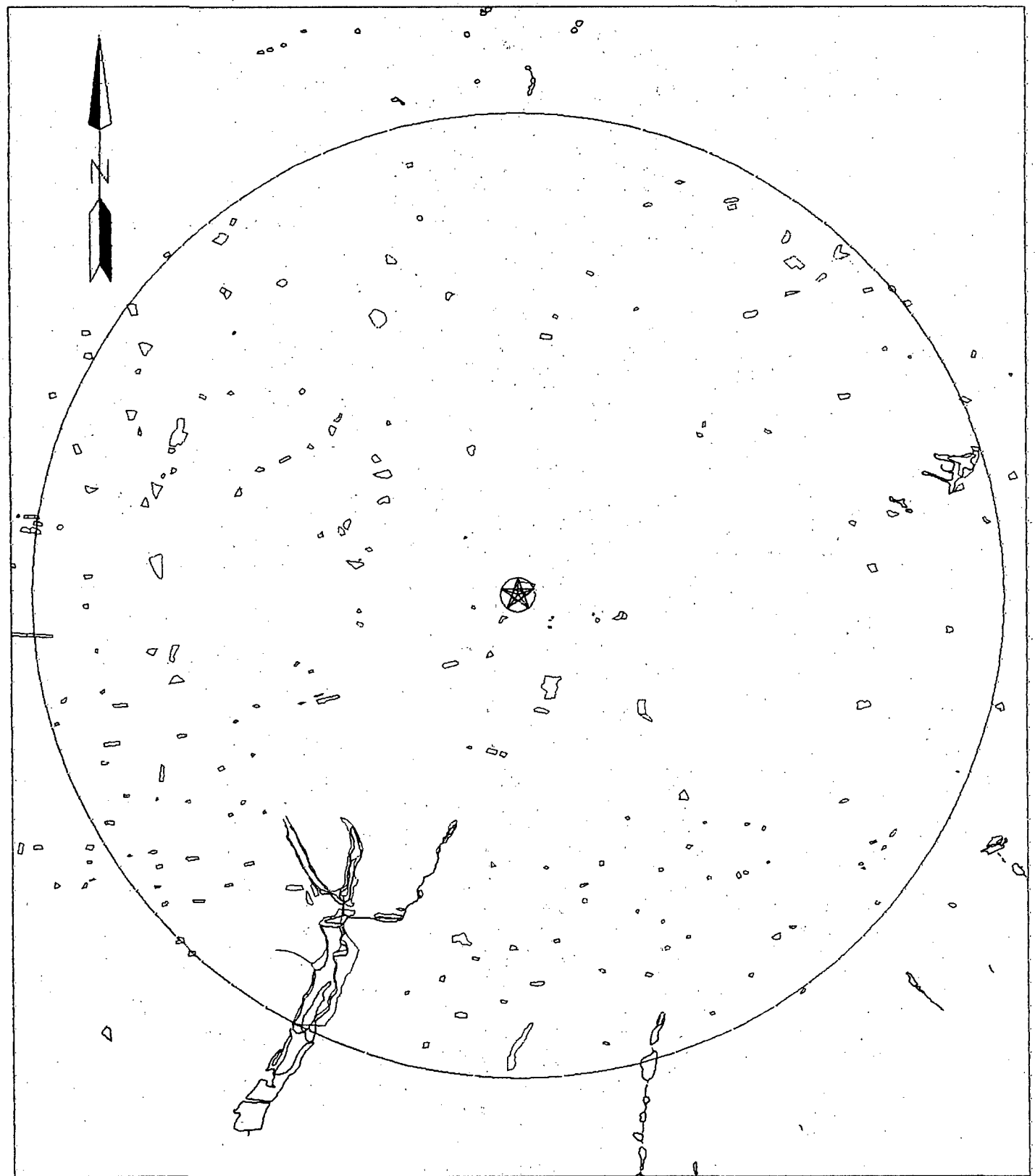
REFERENCE 10

WETLANDS COUNT

Target Rock Corporation, Babylon, NY

DISTANCE FROM THE SITE (miles)	WETLANDS		
	FEDERAL	NYSDEC	TOTAL
0 - 0.25	2	0	2
0.25 - 0.5	4	0	4
0.5 - 1	9	0	9
1 - 2	25	1	26
2 - 3	64	5	61
3 - 4	106	8	114
Total			216

Reference: LMS Geographic Information System (GIS) using data from NWI Maps and NYSDEC Wetland Maps.



SCALE: 0 1 2 miles

This map was prepared by LMS' Geographic Information System (GIS) using data from the following sources: National Wetlands Inventory, NYSDEC Wetlands Inventory Maps.

LEGEND

NYSDEC Wetlands

National Wetlands

FOUR-MILE RADIUS MAP OF WETLANDS AROUND THE TARGET ROCK SITE

NYSDEC I.D. No. 152119
1993 HRS Score

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

REFERENCE 12

New York State Department of Environmental Conservation

Wildlife Resources Center
Information Services
700 Troy-Schenectady Road
Latham, New York 12110-2400

Thomas C. Jorling
Commissioner

July 29, 1993

Michael Lehtinen
Lawler, Matusky & Skelly Engineers
One Blue Hill Plaza, PO Box 1509
Pearl River, New York 10965

Dear Mr. Lehtinen:

We have reviewed the New York Natural Heritage Program files with respect to your recent request for biological information concerning the Target Rock hazardous waste site, as indicated on your enclosed map, located near Lower Melville, Town of Babylon, Suffolk County, New York State.

Enclosed is a computer printout covering the area you requested to be reviewed by our staff. The information contained in this report is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we can only provide data which have been assembled from our files. We cannot provide a definitive statement on the presence or absence of species, habitats or natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals, plants and natural communities and/or significant wildlife habitats. You should contact our regional office, Division of Regulatory Affairs, at the address enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State Law.

If this proposed project is still active one year from now we recommend that you contact us again so that we can update this response.

Sincerely,

Burrell Buffington

Burrell Buffington
NY Natural Heritage Program

Enes.
cc: Reg. 1, Wildlife Mgr.
Reg. 1, Fisheries Mgr.

USERS GUIDE NUMBER 2
(For use with NY Natural Heritage Program and Significant Habitat Unit Reports)

CONFIDENTIAL STATEMENT: The infonnation provided in these reports is for your in-house use only. It is of a sensitive nature and may not be released to the general public or be incorporated in any public document without prior written permission.

NATURAL HERITAGE REPORTS: Explanation of codes and colurn headings:
CO. - first 4 letters of the county name.
TOUN NAME - first 4 letters of the town name.
USGS 7 1/2' TOPOGRAPHIC MAP: name of US Geological Survey nap (1:24,000 scale).
LAT. - latitude of the location of the element. Composed of degrees, ninutes and seconds; for example, 42 degrees, 30 minutes and 33 seconds. The latitude & longitude coordinate gives the centrum of the occurrence only; the outer boundary of the occurrence is often much larger. Inportant: latitude/longitude must be used with Precision (see below). For example, the location of an occurrence with N (minute) Precision is not precisely known at this time and is thought to occur somewhere within a 1.5 mile radius of the given latitude/longitude.
LONG. - longitude of the location of the element. See LATITUDE above.
SIZE IN ACRES - approximate acres occupied by the element.
SCIENTIFIC NAME - scientific name of the rare plant or animal or the name of the community.
COMMON NAME - connon name of the rare plant or animal.
TYPE (of eleaent) - A or I=animal, C=eonnunity, I=invertebrate, P=vascular plant, N=non-vascular plant, O=other
PRECISION: the locational PRECISION of a napped occurrence.
S - SECONDS. location known precisely - within a 3-second radius of the latitude t longitude given.
N - MINUTE. location within 1-ninute radius (1.5 ni.) of the latitude & longitude given.
YEAR LAST OBS. - year the element was last observed at this site.
ELEMENT OCCURRENCE RANK - comparative evaluation summarizing the quality, condition, viability and defensibility of the element occurrence at this site.
A-D = Extant: A=Excellent, B=Cood, C=Narginal, O=Poor, E=Extant but with insufficient data to assign a rank of A-O
F = Failed to find. Did not locate species, habitat still extant, further field work is justified.
H = Historical. Historical occurrence without any recent field information.
X = Extirpated. Field/other data indicates element/habitat destroyed so it can no longer exist at site.

NTS LEGAL STATUS - protected status of the plant, aninal or coonunity.
ANIMALS: categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.
E = Endangered Species: any species which meet one of the following criteria:
1) Any native species in imminent danger of extirpation or extinction in New York.
2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

T = Threatened Species: any species which meet one of the following criteria:
1) Any native species likely to become an endangered species within the foreseeable future in New York or
2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).

P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.

U = Unprotected (defined in Environnental Conservation Law section 11-0103): the species may be taken at any time without limit; however a licence to take may be required.

G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

PLANTS: The following categories are defined in regulation 6NYCRR part 193.3 (amendment pending) and apply to New York State Environmental Conservation Law section 9-1503.
E = Endangered Species: listed species are those with: 1) 5 or fewer extant sites, or 2) fewer than 1,000 individuals, or 3) restricted to fewer than 4 U.S.G.S. 7 1/2 ainute topographical naps, or 4)species listed as endangered by the U.S. Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

T = Threatened: listed species are those with: 1) 6 to fewer than 20 extant sites, or 2) 1,000 to fewer than 3,000 individuals, or 3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and 1/2 minute topographical maps, or 4) listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

R = Rare: listed species have: 1) 20 to 35 extant sites, or 2) 3,000 to 5,000 individuals statewide.

V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked. (The attached list does not contain a complete listed of the species in this category.

COMMUNITIES: At this time there are no categories defined for communities.
U = unprotected

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION REGULATORY AFFAIRS REGIONAL OFFICES

REGION	COUNTIES	NAME	LOCATION
Region 1	Nassau Suffolk	Robert Greene	Bldg. 40, SUNY Stony Brook, NY 11790
Region 2	New York City	Barbara Rinaldi	Hunter Point Plaza 47-40 21st Street Long Island City, NY 11101
Region 3	Dutchess Orange Putnam Rockland Sullivan Ulster Westchester	Ralph Manna	21 South Putt Corners Road New Paltz, NY 12561
Region 4	Albany Columbia Delaware Greene Montgomery Otsego Rensselaer Schenectady Schoharie	Jeffrey Sama	2176 Guilderland Avenue Schenectady, NY 12306
Region 5	Clinton Essex Franklin Fulton Hamilton Saratoga Warren Washington	Richard Wild	Route 86 Ray Brook, NY 12977
Region 6	Herkimer Jefferson Lewis Oneida St. Lawrence	Randy Vaas	State Office Building 317 Washington Street Watertown, NY 13601

OVER

BIOLOGICAL AND CONSERVATION DATA SYSTEM ELEMENT OCCURRENCE REPORT, 27 JUL 1993
Prepared by N.Y.S.D.E.C NATURAL HERITAGE PROGRAM

(This report contains sensitive information which should be treated in a sensitive manner. Refer to the Users Guide for explanation of codes and ranks.)

COUNTY AND TOWN NAME	USGS 7 1/2' TOPOGRAPHIC MAP	LAT.	LONG.	PREC- ISION	SIZE (acres)	SCIENTIFIC NAME	COMMON NAME	ELEMENT TYPE	LAST SEEN	EO RANK	NYS STATUS	FED. STATUS	GLOBAL RANK	STATE RANK	OFFICE	USE
* NASSAU																
HEMPSTEAD 1	AMITYVILLE	404422	0732952	N		ASTER CONCOLOR	SILVERY ASTER	PLANT	1928	H	E		G4?	S1	4007364	33
HEMPSTEAD 2	AMITYVILLE FREEPORT	404008	0732951	N		DIGITARIA FILIFORMIS	SLENDER CRABGRASS	PLANT	1925	H	R		GS	S1S2	4007364	2S
HEMPSTEAD 3	AMITYVILLE	403733	0732904	S	1	PANOQUINA PANOQUIN	SALT MARSH SKIPPER	INVERTEBRATE	1987	AB	U		G5	SU	4007364	17
HEMPSTEAD 4	AMITYVILLE FREEPORT	404317	0732946	M		PLATANTHERA CILIARIS	ORANGE FRINGED ORCHIS	PLANT	1934	H	T		G5	S1	4007364	9
HEMPSTEAD 5	AMITYVILLE	403758	0732919	S	4	RYNCHOPS NIGER	BLACK SKIMMER	VERTEBRATE	1986	D	P		GS	S2	4007364	11
HEMPSTEAD 6	AMITYVILLE FREEPORT	404121	0732955	M		SCLERIA PAUCIFLORA VAR CAROLINIANA	FEWFLOWER NUTRUSH	PLANT	1907	H	T		G5T4T5	S1	4007364	12
HEMPSTEAD 7	AMITYVILLE FREEPORT	404322	0732940	M		SCLERIA PAUCIFLORA VAR CAROLINIANA	FEWFLOWER NUTRUSH	PLANT	1918	H	T		G5T4T5	S1	4007364	34
HEMPSTEAD 8	AMITYVILLE FREEPORT	403913	0732939	M	0	SCUTELLARIA INTEGRIFOLIA	HYSSOP-SKULLCAP	PLANT	1929	H	U		G5	S1	4007364	39
HEMPSTEAD 9	AMITYVILLE	403830	0732929	S	1	STERNA HIRUNDO	COMMON TERN	VERTEBRATE	1986	D	T	C2NL	G5	S3	4007364	10
HEMPSTEAD 10	AMITYVILLE	403758	0732919	S	4	STERNA HIRUNDO	COMMON TERN	VERTEBRATE	1986	D	T	C2NL	GS	S3	4007364	11
HEMPSTEAD 11	AMITYVILLE	403830	0732929	S	1	STERNA NILOTICA	GULL-BILLED TERN	VERTEBRATE	1985	D	P		GS	S1	4007364	10

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HEMPSTEAD 12	FREEPORT AMITYVILLE	404033	0733057	M	0	CYPERUS FLAVESCENS VAR POAEFORMIS	CYPERUS	PLANT	1929	H	U		GSTU	S1	400736S	S1
HEMPSTEAD 13	FREEPORT AMITYVILLE	404044	0733028	N		LINUM MEDIUM VAR TEXANUM	SOUTHERN YELLOW FLAX	PLANT	1929	H	T		GST5	S2	400736S	8
HEMPSTEAD 14	FREEPORT AMITYVILLE	404129	0733056	M	0	SCUTELLARIA INTEGRIFOLIA	HYSSOP-SKULLCAP	PLANT	1907	H	U		GS	S1	4007365	54
HEMPSTEAD 15	FREEPORT AMITYVILLE	404048	0733020	M		SOLIDAGO ELLIOTTII	COASTAL GOLDENROD	PLANT	1926	H	U		GS	S1	4007365	38
OYSTER BAY 16	AMITYVILLE	404018	0732808	S	1	CAREX BARRATTII	BARRATT'S SEDGE	PLANT	1990	AB	E	3C	G3	S1	4007364	19
OYSTER BAY 17	AMITYVILLE	404018	0732801	S	1	CAREX BULLATA	BUTTON SEDGE	PLANT	1986	AB	T		GS	S1	4007364	16
OYSTER BAY 18	AMITYVILLE	404050	0732842	M		CAREX COLLINSII	COLLINS SEDGE	PLANT	1924	H	R		G4	S1S2	4007364	28
OYSTER BAY 19	AMITYVILLE	404043	0732837	M		CAREX HORMATHODES	SEDGE	PLANT	1946	H	R		G4GS	S2	4007364	27
OYSTER BAY 20	AMITYVILLE FREEPORT	404013	0732948	M		CAREX POLYMORPHA	VARIABLE SEDGE	PLANT	1927	H	U	C2	G2	SH	4007364	26
OYSTER BAY 21	AMITYVILLE	404003	0732856	S	1	CHAMAECYPARIS THYOIDES	ATLANTIC WHITE CEDAR	PLANT	1989	D	R		G4	S3	4007364	23
OYSTER BAY 22	AMITYVILLE	403955	0732810	M		GENTIANA SAPONARIA	SOAPWORT GENTIAN	PLANT	1923	H	R		GS	S1	4007364	3S
OYSTER BAY 23	AMITYVILLE	403954	0732816	M		HELIANTHUS ANGUSTIFOLIUS	SWAMP SUNFLOWER	PLANT	1928	H	T		GS	S2	4007364	21

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OYSTER BAY 24	AMITYVILLE	404014	0732807	S	1	HYPERICUM HYPERICOIDES SSP MULTICAULE	ST. ANDREW'S CROSS	PLANT	1990	CD	E		GST4	S1	4007364	36
OYSTER BAY 25	AMITYVILLE	404003	0732856	S	1	JUNCUS DEBILIS	WEAK RUSH	PLANT	1989	C	T		GS	S1	4007364	23
OYSTER BAY 26	AMITYVILLE	404017	0732801	S	1	LECHEA RACEMULOSA	PINWEED	PLANT	1985	A	R		GS	S2	4007364	16
OYSTER BAY 27	AMITYVILLE	404054	0732742	M		LESPEDEZA STUEVEI	LESPEDEZA	PLANT	1918	H	R		G4?	S2S3	4007364	6
OYSTER BAY 28	AMITYVILLE	404303	0732849	M		LINUM MEDIUM VAR TEXANUM	SOUTHERN YELLOW FLAX	PLANT	1936	H	T		GSTS	S2	4007364	2
OYSTER BAY 29	AMITYVILLE	404047	0732758	M		OXYPOLIS RIGIDIOR	STIFF COWBANE	PLANT	1923	H	U		GS	SH	4007364	1
OYSTER BAY 30	AMITYVILLE	404317	0732755	M	0	POLYGALA INCARNATA	PINK MILKWORT	PLANT	1936	H	U		GS	SH	4007364	37
OYSTER BAY 31	AMITYVILLE	404030	0732757	M	0	POLYGONUM OPELOUSAHUM	OPELOUSA SMARTWEED	PLANT	1924	H	U		GS	S2S3	4007364	7
OYSTER BAY 32	AMITYVILLE	404030	0732757	M	0	POLYGONUM SETACEUM VAR INTERJECTUM	SWAMP SMARTWEED	PLANT	1938	H	U		GST4	S1S2	4007364	7
OYSTER BAY 33	AMITYVILLE	404321	0732841	M		SCLERIA PAUCIFLORA VAR CAROLINIANA	FEWFLOWER NUTRUSH	PLANT	1936	H	T		GST4TS	S1	4007364	13
OYSTER BAY 34	AMITYVILLE	404018	0732801	S	1	SCLERIA TRIGLOMERATA	WHIP NUTRUSH	PLANT	1990	B	R		GS	S2	4007364	16
OYSTER BAY 35	AMITYVILLE	404030	0732757	M	0	SCUTELLARIA INTEGRIFOLIA	HYSSOP-SKULLCAP	PLANT	1924	H	U		GS	S1	4007364	7

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OYSTER BAY 36	AMITYVILLE	404433	0732650	N	0	SCUTELLARIA INTEGRIFOLIA	HYSSOP-SKULLCAP	PLANT	1899	H	U		GS	S1	4007364	40
OYSTER BAY 37	AMITYVILLE	404030	0732757	M	1	SMILAX PSEUDOCHINA	FALSE CHINA-ROOT	PLANT	1987	E	E		G4G5	S1	4007364	7
OYSTER BAY 38	AMITYVILLE	404049	0732823	M		SOLIDAGO ELLIOTTII	COASTAL GOLDENROD	PLANT	1928	H	U		G5	S1	4007364	32
OYSTER BAY 39	AMITYVILLE	404030	0732757	H	0	SPHENOPHOLIS OBTUSATA VAR OBTUSATA	PRAIRIE WEDGEGRASS	PLANT	1926	H	U		GSTS	SH	4007364	7
OYSTER BAY 40	AMITYVILLE	403803	0732541	S	5	STERNA HIRUNDO	COMMON TERN	VERTEBRATE	1986	C	T	C2NL	GS	S3	4007364	14
OYSTER BAY 91	HUNTINGTON	405128	0732936	S	2	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	B	E		GS	S3	4007374	6
OYSTER BAY 92 HUNTINGTON	HUNTINGTON	40S200	0732804	M		CAREX HORMATHODES	SEDGE	PLANT	1920	H	R		G4GS	S2	4007374	13
OYSTER BAY 93	HUNTINGTON	405157	0732945	S	1	CAREX MITCHELLIANA	MITCHELL SEDGE	PLANT	1988	BC	E		G3G4	S1	4007374	12
OYSTER BAY 94	HUNTINGTON HICKSVILLE	404653	0732956	M		HELIANTHENUN DUHOSUN	BUSHY ROCKROSE	PLANT	1907	H	T	3C	G3	S2	4007374	2
OYSTER BAY 95	HUNTINGTON	40S04S	0732729	S	1	JUNCUS SUBCAUDATUS	WOODS-RUSH	PLANT	1986	E	R		GS	S1	4007374	S
OYSTER BAY 96	HUNTINGTON	405153	0732952	S	4	PYCNANTHENUM VERTICILLATUN VAR VERTICILLATUN	WHORLED MOUNTAIN-MINT	PLANT	1988	B	T		GST?	S1	4007374	14
OYSTER BAY 97 HUNTINGTON	HUNTINGTON LLOYD HARBOR	405205	0732758	M		RUMEX HASTATULUS	HEART SORREL	PLANT	1914	H	T		GS	S1	4007374	7

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COUNTY AND TOWN NAME	USGS 7 1/2' TOPOGRAPHIC MAP	LAT.	LONG.	PREC-ISION	SIZE (acres)	SCIENTIFIC NAME	COMMON NAME	ELEMENT TYPE	LAST SEEN	EO RANK	NYS STATUS	FED. STATUS	GLOBAL RANK	STATE RANK	OFFICE	USE
* SUFFOLK																
BABYLON 48	AMITYVILLE	404355	0732407	H		AGALINIS ACUTA	SANDPLAIN GERARDIA	PLANT	1921	F	E	LE	G1	S1	4007364	8
BABYLON 49	AMITYVILLE WEST GILGO BEACH BAY SHORE WEST	403732	0732232	M	0	AS10 FLAMMEUS	SHORT-EARED OWL	VERTEBRATE	1979	E	P SC		GS	S2	4007364	31
BABYLON 50	AMITYVILLE	404032	0732443	H		CAREX COLLINSII	COLLINS SEDGE	PLAHT	1928	H	R		G4	S1S2	4007364	29
BABYLON 51	AMITYVILLE HUNTINGTON	404436	0732SS5	M		CAREX COLLINSII	COLLINS SEDGE	PLANT	1927	H	R		G4	S1S2	4007364	30
BABYLON 52	AMITYVILLE	404028	0732448	M		DIGITARIA FILIFORMIS	SLENDER CRABGRASS	PLANT	1937	H	R		GS	S1S2	4007364	24
BABYLON 53	AMITYVILLE	404018	0732451	M		GENTIANA SAPONARIA	SOAPWORT GENTIAN	PLANT	1928	H	R		GS	S1	4007364	22
BABYLON 54	AMITYVILLE HUNTINGTON GREENLAWN	404437	0732326	S	430	HEMILEUCA MAIA MAIA	COASTAL BARRENS BUCKMOTH	INVERTEBRATE	1985	AB	U SC		G4T2T3	S2	4007364	18
BABYLON 55	AMITYVILLE	404031	0732455	N		LINUM MEDIUM VAR TEXANUM	SOUTHERN YELLOW FLAX	PLANT	1928	H	T		GSTS	S2	4007364	3
BABYLON 56	AMITYVILLE	404327	0732339	N		LINUM MEDIUM VAR TEXANUM	SOUTHERN YELLOW FLAX	PLANT	1927	H	T		GSTS	S2	4007364	5
BABYLON 57	AMITYVILLE	404008	0732452	M		RHYNCHOSPORA TORREYANA	TORREY'S BEAKRUSH	PLANT	1929	H	U		G4	SH	4007364	20

BIOLOGICAL AND CONSERVATION DATA SYSTEM ELENENT OCCURRENCE REPORT, 27 JUL 1993
Prepared by N.Y.S.D.E.C NATURAL HERITAGE PROGRAH

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BABYLON 58	ANITYVILLE HUNTINGTON GREENLAWN	404437	0732326	S	430	SATYRIUM EDWARDSII	EDWARD'S HAIRSTREAK	INVERTEBRATE		E7	U		G4	S3S4	4007364	18
BABYLON 57	AMITYVILLE	403834	0732324	S	5	STERNA HIRUNDO	COMMON TERN	VERTEBRATE	1986	D	T	C2NL	GS	S3	4007364	15
BABYLON 160	BAY SHORE WEST AMITYVILLE	404135	0732117	H	0	ASTER SOLIDAGINEUS	FLAX-LEAF WHITETOP	PLANT	1927	H	U		GS	SIS3	4007363	29
BABYLON 61	BAY SHORE WEST AMITYVILLE	404125	0732154	M		CAREX BARRATTII	BARRATT'S SEDGE	PLANT	1927	H	E	3C	G3	SI	4007363	31
BABYLON 62	BAY SHORE WEST AMITYVILLE	404120	0732216	M		CAREX COLLINSII	COLLINS SEDGE	PLANT	1927	H	R		G4	S1S2	4007363	33
BABYLON 63	BAY SHORE WEST GREENLAWN AMITYVILLE	404448	0732116	H	0	GLYCERIA CANADENSIS VAR LAXA	RATTLESNAKE GRASS	PLANT	1924	H	U		G5TU0	SH	4007363	30
BABYLON 64	BAY SHORE WEST GREENLAWN AMITYVILLE	404439	0732137	N	0	LINUH MEDIUM VAR TEXANUM	SOUTHERN YELLOW FLAX	PLANT	1926	H	T		GSTS	S2	4007363	4
BABYLON 65	HUNTINGTON AMITYVILLE GREENLAWN BAY SHORE WEST	404534	0732240	M	0	AGRIMONIA ROSTELLATA	WOODLAND AGRIMONY	PLANT	1924	H	R		GS	S2S3	4007374	10
BABYLON 66	HUNTINGTON GREENLAWN	404534	0732240	M		DESMODIUM CILIARE	TICK-TREFOIL	PLANT	192S	H	T		GS	S2S3	4007374	10

BIOLOGICAL AHD CONSERVATION DATA SYSTEM ELEMENT OCCURRENCE REPORT, 27 JUL 1993
Prepared by N.Y.S.D.E.C NATURAL HERITAGE PROGRAM

(This report contains sensitive information which should be treated In a sensitive manner. Refer to the Users Guide for explanation of codes and ranks.)

COUNTY AND TOWN NAME	USGS 7 1/2' TOPOGRAPHIC MAP	LAT.	LONG.	PREC-ISION	SIZE (acres)	SCIENTIFIC NAME	COMMON NAME	ELEMENT TYPE	LAST SEEN	EO RANK	NYS STATUS	FED. STATUS	GLOBAL RANK	STATE RANK	OFFICE	USE
BABYLON 67	HUNTINGTON	404546	0732259	S	10	HYPERICUM HYPERICOIDES SSP MULTICAULE	ST. ANDREW'S CROSS	PLANT	1987	B	E		GST4	S1	4007374	3
BABYLON 68	HUNTINGTON GREENLAWN	404508	0732242	S	100	PITCH PINE-SCRUB OAK BARRENS	PITCH PINE-SCRUB OAK BARRENS	CONMUNITY	1985	C	U		G2	S1	4007374	1
BABYLON 69	HUNTINGTON	404546	07322S9	S	1	PLANTAGO PUSILLA	DWARF PLANTAIN	PLANT	1987	AB	U		GS	S1?	4007374	3
HUNTINGTON 70	GREENLAWN HUNTINGTON	404757	0732110	M		ISOTRIA MEDEOLOIDES	SHALL WHORLED POGONIA	PLANT	1923	H	V	LE	G2	SH	4007373	17
HUNTINGTON 71	HUNTINGTON	404927	0732557	S	4	AMBYSTOMA TIGRINUM	TIGER SALAMANDER	VERTEBRATE	1984	B	E		GS	S3	4007374	8
HUNTINGTON OYSTER BAY 72	HUNTINGTON	405017	0732659	M	0	CYPERUS FLAVESCENS VAR POAEFORHIS	CYPERUS	PLANT	1934	H	U		GSTU	S1	4007374	16
HUNTINGTON 73	HUNTINGTON	405217	0732735	M	0	CYPERUS FLAVESCENS VAR POAEFORHIS	CYPERUS	PLANT	1928	H	U		GSTU	S1	4007374	17
HUNTINGTON OYSTER BAY 74	HUNTINGTON LLOYD HARBOR	40S224	0732737	M		DESMODIUM CILIARE	TICK-TREFOIL	PLANT	1919	H	T		GS	S2S3	4007374	11
HUNTINGTON 75	HUNTINGTON	40S04S	0732729	S	1	HYPERICUM DENSIFLORUH	BUSHY ST. JOHN'S-WORT	PLANT	1986	B	E		GS	S1	4007374	5
HUNTINGTON 76	HUNTINGTON	405217	0732735	M	0	PANICUM STIPITATUH	TALL FLAT PANIC GRASS	PLANT	1934	H	U		G4G5	SH	4007374	17
HUNTINGTON 77	HUNTINGTON	405022	0732647	S	1	QUERCUS MARILANDICA	BLACKJACK OAK	PLANT	1990	C	R		GS	S3?	4007374	IS

BIOLOGICAL AND CONSERVATION DATA SYSTEM ELEMENT OCCURRENCE REPORT, 27 JUL 1993
Prepared by N.Y.S.D.E.C NATURAL HERITAGE PROGRAM

(This report contains sensitive Information which should be treated in a sensitive manner. Refer to the Users Guide for explanation of codes and ranks.)

COUNTY AND TOWN NAME	USGS 7 1/2' TOPOGRAPHIC MAP	LAT.	LONG.	PREC-ISION	SIZE (acres)	SCIENTIFIC NAME	COMMON NAME	ELEMENT TYPE	LAST SEEN	EO RANK	NYS STATUS	FED. STATUS	GLOBAL RANK	STATE RANK	OFFICE	USE
HUNTINGTON 78	HUNTINGTON	404854	0732535	S	1	QUERCUS MARILANDICA	BLACKJACK OAK	PLANT	1991	BC	R		GS	S3?	4007374	18

78 Records Processed

SIGNIFICANT HABITAT PROGRAM
QUADRANGLE LISTING

DATE: 07/27/93

QUADRANGLE: Huntington

ID NUMBER	NAME OF AREA	TYPE OF AREA	LATITUDE (DEG MIN SEC)	LONGITUDE	TOWN/CITY	COUNTY
SW 30-514	Cove Road 79	Tiger Salamander Habitat	40 51 30	73 29 36	Oyster Bay	Nassau
SW 52-530	Lloyd Harbor 80	Waterfowl Wintering Area	40 54 34	73 29 06	Huntington	Suffolk
SW 52-580	West Hill Ponds 81	Tiger Salamander Ponds	40 49 27	73 25 48	Huntington	Suffolk

SIGNIFICANT HABITAT PROGRAM
QUADRANGLE LISTING

DATE: 07/27/93

QUADRANGLE: Amityville

ID NUMBER	NAME OF AREA	TYPE OF AREA	LATITUDE (DEG MIN SEC)	LONGITUDE	TOWN/CITY	COUNTY
SW 30-503	South Oyster Bay 82	Tern Nesting Area	40 37 59	73 25 38	Hempstead	Nassau
SW 52-503	Great South Bay West 83	Protected Coastal Bay	40 40 03	73 18 30	Babylon	Suffolk

NPL Characteristics Data Collection Form
Target Rock Corporation - 12/09/93

Record Information

1. Site Name: Target Rock Corporation
   (as entered in CERCLIS)

2. Site CERCLIS Number: NYD002034056

3. Site Reviewer: Michael Lehtinen

4. Date: lDecemberl993

5. Site Location: Town of Babylon/Suffolk,New York
   (City/County,State)

6. Congressional District: 02

7. Site Coordinates: Single

   Latitude: 40 44'43.0" Longitude: 073 25'47.0"

Site Description

1. Setting: Urban

2. Current Owner: Private - Industrial

3. Current Site Status: Active

4. Years of Operation: Active Site , from and to dates: 1982 to present

5. How Initially Identified: State/Local Program

6. Entity Responsible for Waste Generation:

   - Manufacturing
     - Primary Metal Industries
     - Metal Coating
     - Metal Forging and Stamping

7. Site Activities/Waste Deposition:

   - Other - Discharges to Drywell
   - Drum/Container Storage

Waste Description

8. Wastes Deposited or Detected Onsite:

   - Organic Chemicals
   - Solvents
   - Paints/Pigments
   - Oily Waste

Response Actions

9. Response/Removal Actions:

   - Other Removal Action Has Occurred

RCRA Information

10. For All Active Facilities, RCRA Site Status:

    - Subtitle C
    - -Small Quantity Generator

Demographic Information

11. Workers Present Onsite: Yes

12. Distance to Nearest Non-Worker Individual: Onsite

13. Residential Population Within 1 Mile: 6176.0

14. Residential Population Within 4 Miles: 91159.0

Water Use Information

15. Local Drinking Water Supply Source:

    - Ground Water (within 4 mile distance limit)

16. Total Population Served by Local Drinking Water Supply Source: 91159.0

17. Drinking Water Supply System Type for Local Drinking Water Supply Sources:

- Municipal (Services over 25 People)
- Private

18. Surface Water Adjacent to/Draining Site:

- Other - Recharge Basins
- Wetland

HRS DOCUMENTATION RECORD
Target Rock Corporation - 12/09/93

1. Site Name: Target Rock Corporation
   (as entered in CERCLIS)

2. Site CERCLIS Number: NYD002034056

3. Site Reviewer: Michael Lehtinen

4. Date: 1December1993

5. Site Location: Town of Babylon/Suffolk,New York
   (City/County,State)

6. Congressional District: 02

7. Site Coordinates: Single

   Latitude: 40 44'43.0" Longitude: 073 25'47.0"

	Score
Ground Water Migration Pathway Score (Sgw)	0.60
Surface Water Migration Pathway Score (Ssw)	0.00
Soil Exposure Pathway Score (Ss)	0.00
Air Migration Pathway Score (Sa)	0.96

Site Score	0.57

NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

GROUND WATER MIGRATION PATHWAY SCORESHEET
Target Rock Corporation - 12/09/93

GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: upper glacial		
1. Observed Release	550	550
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	460
3. Likelihood of Release	550	550
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+03
5. Hazardous Waste Quantity	*	100
6. Waste Characteristics	100	18
Targets		
7. Nearest Well	50	0.00E+00
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	0.00E+00
8d. Population (lines 8a+8b+8c)	**	0.00E+00
9. Resources	5	0.00E+00
10. Wellhead Protection Area	20	5.00E+00
11. Targets (lines 7+8d+9+10)	**	5.00E+00
12. Targets (including overlaying aquifers)	**	5.00E+00
13. Aquifer Score	100	0.60
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	0.60

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
Target Rock Corporation - 12/09/93

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	550
2. Potential to Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	0
2c. Distance to Surface Water	25	20
2d. Potential to Release by Overland Flow [lines 2a(2b+2c)]	500	200
3. Potential to Release by Flood		
3a. Containment (Flood)	10	0
3b. Flood Frequency	50	0
3c. Potential to Release by Flood (lines 3a x 3b)	500	0
4. Potential to Release (lines 2d+3c)	500	200
5. Likelihood of Release	550	550
Waste Characteristics		
6. Toxicity/Persistence	*	4.00E+01
7. Hazardous Waste Quantity	*	10
8. Waste Characteristics	100	3
Targets		
9. Nearest Intake	50	0.00E+00
10. Population		
10a. Level I Concentrations	**	0.00E+00
10b. Level II Concentrations	**	0.00E+00
10c. Potential Contamination	**	0.00E+00
10d. Population (lines 10a+10b+10c)	**	0.00E+00
11. Resources	5	0.00E+00
12. Targets (lines 9+10d+11)	**	0.00E+00
13. DRINKING WATER THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
Target Rock Corporation - 12/09/93

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
14. Likelihood of Release (same as line 5)	550	550
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation	*	2.00E+03
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	1000	10
Targets		
18. Food Chain Individual	50	0.00E+00
19. Population		
19a. Level I Concentrations	**	0.00E+00
19b. Level II Concentrations	**	0.00E+00
19c. Pot. Human Food Chain Contamination	**	0.00E+00
19d. Population (lines 19a+19b+19c)	**	0.00E+00
20. Targets (lines 18+19d)	**	0.00E+00
21. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
Target Rock Corporation - 12/09/93

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	550
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc.	*	2.00E+02
24. Hazardous Waste Quantity	*	10
25. Waste Characteristics	1000	6
Targets		
26. Sensitive Environments		
26a. Level I Concentrations	**	0.00E+00
26b. Level II Concentrations	**	0.00E+00
26c. Potential Contamination	**	0.00E+00
26d. Sensitive Environments (lines 26a+26b+26c)	**	0.00E+00
27. Targets (line 26d)	**	0.00E+00
28. ENVIRONMENTAL THREAT SCORE	60	0.00
29. WATERSHED SCORE	100	0.00
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
Target Rock Corporation - 12/09/93

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release to Aquifer Aquifer: upper glacial		
1. Observed Release	550	550
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	460
3. Likelihood of Release	550	550
Waste Characteristics		
4. Toxicity/Mobility/Persistence	*	4.00E+02
5. Hazardous Waste Quantity	*	100
6. Waste Characteristics	100	10
Targets		
7. Nearest Intake	50	0.00E+00
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	0.00E+00
8d. Population (lines 8a+8b+8c)	**	0.00E+00
9. Resources	5	0.00E+00
10. Targets (lines 7+8d+9)	**	0.00E+00
11. DRINKING WATER THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
Target Rock Corporation - 12/09/93

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
12. Likelihood of Release (same as line 3)	550	550
Waste Characteristics		
13. Toxicity/Mobility/Persistence/Bioacc.	*	5.00E+04
14. Hazardous Waste Quantity	*	100
15. Waste Characteristics	1000	32
Targets		
16. Food Chain Individual	50	0.00E+00
17. Population		
17a. Level I Concentrations	**	0.00E+00
17b. Level II Concentrations	**	0.00E+00
17c. Pot. Human Food Chain Contamination	**	0.00E+00
17d. Population (lines 17a+17b+17c)	**	0.00E+00
18. Targets (lines 16+17d)	**	0.00E+00
19. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
Target Rock Corporation - 12/09/93

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
20. Likelihood of Release (same as line 3)	550	550
Waste Characteristics		
21. Ecosystem Tox./Mobility/Persist./Bioacc.	*	5.00E+07
22. Hazardous Waste Quantity	*	100
23. Waste Characteristics	1000	180
Targets		
24. Sensitive Environments		
24a. Level I Concentrations	**	0.00E+00
24b. Level II Concentrations	**	0.00E+00
24c. Potential Contamination	**	0.00E+00
24d. Sensitive Environments (lines 24a+24b+24c)	**	0.00E+00
25. Targets (line 24d)	**	0.00E+00
26. ENVIRONMENTAL THREAT SCORE	60	0.00
27. WATERSHED SCORE	100	0.00
28. SW: GW to SW COMPONENT SCORE (Sgs)	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SOIL EXPOSURE PATHWAY SCORESHEET
Target Rock Corporation - 12/09/93

SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	0
Waste Characteristics		
2. Toxicity	*	0.00E+00
3. Hazardous Waste Quantity	*	0
4. Waste Characteristics	100	0
Targets		
5. Resident Individual	50	0.00E+00
6. Resident Population		
6a. Level I Concentrations	**	0.00E+00
6b. Level II Concentrations	**	0.00E+00
6c. Resident Population (lines 6a+6b)	**	0.00E+00
7. Workers	15	0.00E+00
8. Resources	5	0.00E+00
9. Terrestrial Sensitive Environments	***	0.00E+00
10. Targets (lines 5+6c+7+8+9)	**	0.00E+00
11. RESIDENT POPULATION THREAT SCORE	**	0.00E+00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.
*** No specific maximum value applies, see HRS for details.

SOIL EXPOSURE PATHWAY SCORESHEET
Target Rock Corporation - 12/09/93

SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	0.00E+00
13. Area of Contamination	100	0.00E+00
14. Likelihood of Exposure	500	0.00E+00
Waste Characteristics		
15. Toxicity	*	0.00E+00
16. Hazardous Waste Quantity	*	0
17. Waste Characteristics	100	0
Targets		
18. Nearby Individual	1	1.00E+00
19. Population Within 1 Mile	**	5.00E+00
20. Targets (lines 18+19)	**	6.00E+00
21. NEARBY POPULATION THREAT SCORE	**	0.00E+00
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

AIR PATHWAY SCORESHEET
Target Rock Corporation - 12/09/93

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	119
2b. Particulate Potential to Release	500	0
2c. Potential to Release	500	119
3. Likelihood of Release	550	119
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+02
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	6
Targets		
7. Nearest Individual	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	8.60E+01
8d. Population (lines 8a+8b+8c)	**	8.60E+01
9. Resources	5	5.00E+00
10. Sensitive Environments		
10a. Actual Contamination	***	0.00E+00
10b. Potential Contamination	***	4.00E-02
10c. Sens. Environments(lines 10a+10b)	***	4.00E-02
11. Targets (lines 7+8d+9+10c)	**	1.11E+02
AIR MIGRATION PATHWAY SCORE (Sa)	100	9.61E-01

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.
*** No specific maximum value applies, see HRS for details.

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: CB Drum Storage

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID	CB Drum Storage	
b. Source Type	Other	
c. Secondary Source Type	N.A.	
d. Source Vol.(yd3/gal)	100.00	Source Area (ft2) 0.00
e. Source Volume/Area Value	4.00E+01	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)	0.00E+00	
g. Data Complete?	NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of If)	0.00E+00	
i. Data Complete?	NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)	4.00E+01	

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Dichloroethene, 1,1-	> 2	YES	7.0E-03	ppm
Trichloroethane, 1,1,1-	> 2	YES	2.0E-02	ppm

Documentation for Source Type:

The contamination found in the catch basin is believed to be reflective of the groundwater and does not represent contamination that continues to act as a on-going source.

Reference: 1

Documentation for Secondary Source Type:

There are no secondary source types at the site.

Reference: 1

Documentation for Source Hazardous Substances:

Reference: 1

Documentation for Source Volume:

The area of contamination near the catch basin is estimated to be 100 yards.

Reference:

WASTE QUANTITY

Target Rock Corporation - 12/09/93

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Former Drywell

a. Wastestream ID	valve wastewater
b. Hazardous Constituent Quantity (C) (lbs.)	750.00
c. Data Complete?	YES
d. Hazardous Wastestream Quantity (W) (lbs.)	15000.00
e. Data Complete?	YES
f. Wastestream Quantity Value (W/5,000)	3.00E+00

Wastestream Constituent Hazardous Substances	Concent.	Units	Liquid	Qualifier
Trichloroethane, 1,1,1-	5.0E+04	ppm	YES	

Documentation for Constituents:

Reference: 1

Documentation for Wastestream Quantity:

Reference: 1

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID	Former Drywell
b. Source Type	Other
c. Secondary Source Type	N.A.
d. Source Vol.(yd3/gal) | Source Area (ft2)	0.00 | 0.00
e. Source Volume/Area Value	0.00E+00
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)	7.50E+02
g. Data Complete?	YES
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of If)	3.00E+00
i. Data Complete?	YES
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)	7.50E+02

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Trichloroethane, 1,1,1-	> 2	YES	5.0E+04	ppm

Documentation for Source Type:

Solvent-contaminated wastewater was disposed of in a drywell to the south of the east building. The wastewater was placed in the drywell from mid-1982 to September 1983. A qualified removal action occurred at the site which appears to have alleviated most of the soil contamination.

Reference: 1

Documentation for Secondary Source Type:

No secondary sources were found at the site.

Reference: 1

Documentation for Source Hazardous Substances:

The wastewater was used in a flood washing process in which 5% 1,1,1-trichloroethane was used as a solvent.

Reference: 1

3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No.	Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1	CB Drum Storage	GW-SW-SE-A	4.00E+01	0.00E+00	4.00E+01
2	Former Drywell	GW	0.00E+00	7.50E+02	7.50E+02

4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

Migration Pathway	Contaminant Values		HWQVs*	WCVs**
Ground Water	Toxicity/Mobility	1.00E+03	100	18
SW: Overland Flow, DW	Tox./Persistence	4.00E+01	10	3
SW: Overland Flow, HFC	Tox./Persis./Bioacc.	2.00E+03	10	10
SW: Overland Flow, Env	Etox./Persis./Bioacc.	2.00E+02	10	6
SW: GW to SW, DW	Tox./Persistence	4.00E+02	100	10
SW: GW to SW, HFC	Tox./Persis./Bioacc.	5.00E+04	100	32
SW: GW to SW, Env	Etox./Persis./Bioacc.	5.00E+07	100	180
Soil Exposure:Resident	Toxicity	0.00E+00	0	0
Soil Exposure: Nearby	Toxicity	0.00E+00	0	0
Air	Toxicity/Mobility	1.00E+02	10	6

* Hazardous Waste Quantity Factor Values
** Waste Characteristics Factor Category Values

Note: SW = Surface Water
GW = Ground Water
DW = Drinking Water Threat
HFC = Human Food Chain Threat
Env = Environmental Threat

GROUND WATER PATHWAY AQUIFER SUMMARY
Target Rock Corporation - 12/09/93

No.	Aquifer ID	Type	Overlaying No.	Inter-Connected with	Likelihood of Release	Targets
1	upper glacial	Non K	0	0	550	5.00E+00
2	Magothy	Non K	1	1	550	5.00E+00
3	Lloyd	Non K	2	2	550	5.00E+00

Containment

No.	Source ID	HWQ Value	Containment Value
1	CB Drum Storage	4.00E+01	10
2	Former Drywell	7.50E+02	10
	Containment Factor		10

Documentation for Ground Water Containment, Source CB Drum Storage:

The drywell at the site drained directly to the upper glacial aquifer. The catch basins at the site are in direct contact with the upper glacial aquifer.

Reference: 1

Documentation for Ground Water Containment, Source Former Drywell:

The former drywell was in direct contact with the groundwater.

Reference: 1

Net Precipitation

Net Precipitation (inches)	N.A.

Aquifer: upper glacial

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

Documentation for upper glacial Aquifer:

This aquifer is approximately 20 to 40 feet thick at the site and is composed of Pleistocene outwash sands and gravels. These sands and gravels are found over most of Long Island and are moderately to highly permeable. Although this aquifer is in direct contact with the Magothy Aquifer the water bearing zones of the Magothy are approximately 500 feet below the ground surface and are not believed to be influenced by site activities under natural hydrogeologic conditions.

Reference: 1

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination
1	TRMW-2	Monitoring Well	0.200	Level II
2	TRMW-4	Monitoring Well	0.100	Level I

Well No.	Hazardous Substance	Concent.	MCL	Cancer	RFD	Units
1	Trichloroethane, 1,1,1-	4.3E+01	2.0E+02	0.0E+00	3.2E+03	ppb
2	Bis (2-ethylhexyl) phthalate	2.6E+01	0.0E+00	2.5E+00	7.0E+02	ppb
2	Carbon disulfide	1.1E+01	0.0E+00	0.0E+00	3.5E+03	ppb
2	Trichloroethane, 1,1,1-	6.6E+01	2.0E+02	0.0E+00	3.2E+03	ppb

Observed Release Factor 550

Documentation for Well TRMW-2:

Upper glacial monitoring well completed near the west building

Reference: 1

Documentation for Well TRMW-4:

Upper glacial monitoring well completed at the bottom of the aquifer. This well is directly downgradient of the former drywell area.

Reference: 1

POTENTIAL TO RELEASE

Containment

Containment Factor	10	

Net Precipitation

Net Precipitation Factor	6	

Depth to Aquifer

A. Depth of Hazardous Substances	30.00	feet
B. Depth to Aquifer from Surface	5.00	feet
C. Depth to Aquifer (B - A)	0.00	feet
Depth to Aquifer Factor	5	

Travel Time

Are All Layers Karst?	NO	
Thickness of Layer(s) with Lowest Conductivity	0.00	feet
Hydraulic Conductivity (cm/sec)	0.0E-00	
Travel Time Factor	35	

Potential to Release Factor	460

Aquifer: Magothy

Type of Aquifer: Non Karst

Overlaying Aquifer: 1

Interconnected with: 1

Documentation for Magothy Aquifer:

The Magothy Aquifer is the principal public water supply aquifer on Long Island. It is composed confined sands and gravels. This investigation did not address the potential for contamination in the Magothy Aquifer.

Reference: 1

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Observed Release Factor 0

POTENTIAL TO RELEASE

Containment

Containment Factor	10	

Net Precipitation

Net Precipitation Factor	6	

Depth to Aquifer

A. Depth of Hazardbus Substances	0.00	feet
B. Depth to Aquifer from Surface	0.00	feet
C. Depth to Aquifer (B - A)	0.00	feet
Depth to Aquifer Factor	5	

Travel Time

Are All Layers Karst?	NO	
Thickness of Layer(s) with Lowest Conductivity	0.00	feet
Hydraulic Conductivity (cm/sec)	0.0E-00	
Travel Time Factor	35	

Potential to Release Factor	460

GROUND WATER PATHWAY LIKELIHOOD OF RELEASE Lloyd AQUIFER
Target Rock Corporation - 12/09/93

Aquifer: Lloyd

Type of Aquifer: Non Karst

Overlaying Aquifer: 2

Interconnected with: 2

Documentation for Lloyd Aquifer:

The Loyd aquifer is composed of the Lloyd sand member and the clay member. The water-bearing sands are confined by the sand member. Although the Lloyd is a viable aquifer it is not developed for supply use due to its great depth. This investigation did not address the potential for contamination in the Lloyd Aquifer.

Reference: 1

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination

- N/A and/or data not speeified

Observed Release Factor 0

POTENTIAL TO RELEASE

Containment

Containment Factor	10	

Net Precipitation

Net Precipitation Factor	6	

Depth to Aquifer

A. Depth of Hazardous Substances	0.00	feet
B. Depth to Aquifer from Surface	0.00	feet
C. Depth to Aquifer (B - A)	0.00	feet
Depth to Aquifer Factor	5	

Travel Time

Are All Layers Karst?	NO	
Thickness of Layer(s) with Lowest Conductivity	0.00	feet
Hydraulic Conductivity (cm/sec)	0.0E-00	
Travel Time Factor	35	

Potential to Release Factor	460

Source: 1 CB Drum Storage

Source Hazardous Waste Quantity Value: 40.00

Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value
Dichloroethene, 1,1-	100	1.00E-02	1.00E+00
Trichloroethane, 1,1,1-	10	1.00E-02	1.00E-01

Source: 2 Former Drywell

Source Hazardous Waste Quantity Value: 750.00

Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value
Trichloroethane, 1,1,1-	10	1.00E-02	1.00E-01

GROUND WATER PATHWAY WASTE CHARACTERISTICS

Target Rock Corporation - 12/09/93

Hazardous Substances Found in an Observed Release

Well No.	Observed Release Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value
1	Trichloroethane, 1,1,1-	10	1.00E+00	1.00E+01
2	Bis (2-ethylhexyl) phthalate	100	1.00E+00	1.00E+02
2	Carbon disulfide	1000	1.00E+00	1.00E+03
2	Trichloroethane, 1,1,1-	10	1.00E+00	1.00E+01

Toxicity/Mobility Value from Source Hazardous Substances:	1.00E+00
Toxicity/Mobility Value from Observed Release Hazardous Substances:	1.00E+03
Toxicity/Mobility Factor:	1.00E+03
Sum of Source Hazardous Waste Quantity Values:	7.90E+02
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	18

Population by Well

No.	Well ID	Sample Type	Distance (miles)	Level of Contamination	Population

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	0.0	0.00E+00
> 1/4 to 1/2	0.0	0.00E+00
> 1/2 to 1	0.0	0.00E+00
> 1 to 2	0.0	0.00E+00
> 2 to 3	0.0	0.00E+00
> 3 to 4	0.0	0.00E+00

Potential Contamination Factor: 0.000

Nearest Well

Level of Contamination: N.A.

Nearest Well Factor: 0.00E+00

Documentation for Nearest Well:

The nearest supply well is located 0.45 miles upgradient to the northeast. This well is completed in the Magothy Aquifer. There are no known Targets for the upper glacial aquifer.

Reference: 2

Resources

Resource Use: NO

Resource Factor: 0.00E+00

Documentation for Resources:

No resources identified.

Reference: 1

Wellhead Protection Area

There is a designated wellhead protection area

Wellhead Protection Area Factor: 5.00E+00

Documentation for Wellhead Protection Area:

No public wells completed in the upper glacial aquifer are within the target distance limit, there are wellhead protection areas within the target distance limit for the Magothy Aquifer.

Reference: 1

Population by Well

No.	Well ID	Sample Type	Distance (miles)	Level of Contamination	Population

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	0.0	0.00E+00
> 1/4 to 1/2	0.0	0.00E+00
> 1/2 to 1	0.0	0.00E+00
> 1 to 2	0.0	0.00E+00
> 2 to 3	0.0	0.00E+00
> 3 to 4	0.0	0.00E+00

Potential Contamination Factor: 0.000

Documentation for Target Population > 0 to 1/4 mile Distance Category:

The Magothy Aquifer is the primary water supply aquifer on Long Island. Most of the water bearing sands and gravels are located at depths ranging from 500 to 600 feet below the ground surface.

Reference: 1

Documentation for Target Population > 1/4 to 1/2 mile Distance Category:

The Magothy Aquifer is the primary water supply aquifer on Long Island. Most of the water bearing sands and gravels are located at depths ranging from 500 to 600 feet.

Reference: 1

Documentation for Target Population > 1/2 to 1 mile Distance Category:

The Magothy Aquifer is the primary water supply aquifer on Long Island. Most of the water bearing sands and gravels are located at depth ranging from 500 to 600 feet.

Reference: 1

Documentation for Target Population > 1 to 2 miles Distance Category:

The Magothy Aquifer is the primary water supply aquifer on Long Island. Most of the water bearing sands and gravels are located at depths ranging from 500 to 600 feet.

Reference: 1

Documentation for Target Population > 2 to 3 miles Distance Category:

The Magothy Aquifer is the primary water supply aquifer on Long Island. Most of the water bearing sands and gravels are located at depths ranging from 500 to 600 feet.

Reference: 1

Documentation for Target Population > 3 to 4 miles Distance Category:

The Magothy Aquifer is the primary water supply aquifer on Long Island. Most of the water bearing sands and gravels are located at depths ranging from 500 to 600 feet.

Reference: 1

Nearest Well

Level of Contamination: N.A.

Nearest Well Factor: 0.00E+00

Resources

Resource Use: NO

Resource Factor: 0.00E+00

Documentation for Resources:

No resources identified.

Reference: 1

Wellhead Protection Area

There is a designated wellhead protection area

Wellhead Protection Area Factor: 5.00E+00

Documentation for Wellhead Protection Area:

The site is within .5 miles of the deep flow zone recharge area which has been defined as the baseline wellhead protection area for the Magothy and Lloyd Aquifers.

Reference: 3

Population by Well

No.	Well ID	Sample Type	Distance (miles)	Level of Contamination	Population

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

GROUND WATER PATHWAY TARGETS FOR AQUIFER Lloyd
Target Rock Corporation - 12/09/93

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	0.0	0.00E+00
> 1/4 to 1/2	0.0	0.00E+00
> 1/2 to 1	0.0	0.00E+00
> 1 to 2	0.0	0.00E+00
> 2 to 3	0.0	0.00E+00
> 3 to 4	0.0	0.00E+00

Potential Contamination Factor: 0.000

Documentation for Target Population > 0 to 1/4 mile Distance Category:

The Lloyd Aquifer is currently not used as a public water supply.

Reference: 1

Documentation for Target Population > 1/4 to 1/2 mile Distance Category:

The Lloyd Aquifer is currently not used as a public water supply.

Reference: 1

Documentation for Target Population > 1/2 to 1 mile Distance Category:

The Lloyd aquifer is currently not used as a public water supply.

Reference: 1

Documentation for Target Population > 1 to 2 miles Distance Category:

The Lloyd Aquifer is currently not used as a public water supply.

Reference: 1

Documentation for Target Population > 2 to 3 miles Distance Category:

The Lloyd Aquifer is currently not used as a public water supply.

Reference: 1

Documentation for Target Population > 3 to 4 miles Distance Category:

The Lloyd Aquifer is currently not used as a public water supply.

Reference: 1

Nearest Well

Level of Contamination: N.A.

Nearest Well Factor: 0.00E+00

Resources

Resource Use: NO

Resource Factor: 0.00E+00

Documentation for Resources:

No resources identified.

Reference:

Wellhead Protection Area

There is a designated wellhead protection area

Wellhead Protection Area Factor: 5.00E+00

Documentation for Wellhead Protection Area:

The site is within the .5 miles of the deep flow zone recharge area which has been defined as the baseline wellhead protection area for the Magothy and Lloyd Aquifers.

Reference: 3

SURFACE WATER PATHWAY SEGMENT SUMMARY
Target Rock Corporation - 12/09/93

No.	Segment ID	Segment Type	Water Type	Start Point (mi)	End Point (mi)	Average Flow (cfs)
1		River	Fresh	0.00	0.00	0

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
Target Rock Corporation - 12/09/93

OBSERVED RELEASE

No.	Sample ID	Sample Type	Distance (miles)	Level of Contamination DW	HFC	Env
1	TRSW-1	Aqueous	0.000	Level I	Potential	Level II

Sample No.	Hazardous Substance	Concent.	Units
1	Dichloroethene, 1,1-	7.0E+00	ppb
1	Trichloroethane, 1,1,1-	2.0E+01	ppb

Observed Release Factor 550

Documentation for Observed Release, Sample TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
Target Rock Corporation - 12/09/93

POTENTIAL TO RELEASE

Potential to Release by Overland Flow

Containment

No.	Source ID	HWQ Value	Containment Value
1	CB Drum Storage	4.00E+01	10

Containment Factor: 10

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
Target Rock Corporation - 12/09/93

Distance to Surface Water

Distance to Surface Water:	166.0 feet
Distance to Surface Water Factor:	20

Documentation for Distance to Surface Water:

The distance to a surface water body was calculated using the LMS GIS system.

Reference: 6

Runoff

A.	Drainage Area:	11.0 acres
B.	2-year, 24-hour Rainfall:	3.0 inches
C.	Soil Group: Coarse-textured soils with high infiltration rates	A
	Runoff Factor:	0

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Potential to Release by Overland Flow Factor: 200

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
Target Rock Corporation - 12/09/93

Potential to Release by Flood

No.	Source ID	HWQ Value	Flood Containment Value	Flood Frequency Value	Potential to Release by Flood

- N/A and/or data not specified

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Potential to Release by Flood Factor: 0

Documentation for Flood Containment, Source CB Drum Storage:

The area is not a flood prone area.

Reference: 1

Documentation for Flood Frequency, Source CB Drum Storage:

The site is not located within a floodplain.

Reference: 1

Documentation for Flood Containment, Source Former Drywell:

This area is not flood prone.

Reference: 1

Documentation for Flood Frequency, Source Former Drywell:

The area is not flood prone. the source is not in a floodplain.

Reference: 1

SW PATHWAY: OVERLAND/FLOOD DRINKING WATER THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 1 CB Drum Storage

Source Hazardous Waste Quantity Value: 40.00

Hazardous Substance	Toxicity Value	Persistence Value	Toxicity/ Persistence Value
Dichloroethene, 1,1-	100	4.00E-01	4.00E+01
Trichloroethane, 1,1,1-	10	4.00E-01	4.00E+00

Hazardous Substances Found in an Observed Release

Sample No.	Observed Release Hazardous Substance	Toxicity Value	Persistence Value	Toxicity/ Persistence Value
1	Dichloroethene, 1,1-	100	4.00E-01	4.00E+01
1	Trichloroethane, 1,1,1-	10	4.00E-01	4.00E+00

Toxicity/Persistence Value from Source Hazardous Substances:	4.00E+01
Toxicity/Persistence Value from Observed Release Hazardous Substances:	4.00E+01
Toxicity/Persistence Factor:	4.00E+01
Sum of Source Hazardous Waste Quantity Values:	4.00E+01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	3

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS
Target Rock Corporation - 12/09/93

Level I Concentrations

Sample ID: TRSW-1
Sample Medium: Aqueous
Location: 0.00 miles

Hazardous Substance	Hazardous Substance Concentration	DW MCL Benchmark Concentration	Units
Dichloroethene, 1,1-	7.0E+00	7.0E+00	ppb
Trichloroethane, 1,1,1-	2.0E+01	2.0E+02	ppb

Documentation for TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

Sample ID: TRSW-1
Distance from the Probable Point of Entry: 0.00 miles

Documentation for TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

Most Distant Level II Sample

- N/A and/or data not specified

Level I Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

Population Served by Level I Intakes: 0.0

Level I Population Factor: 0.00E+00

Documentation for Intake :

The area within the target distance limit is served by groundwater sources. Most of Long Island relies on groundwater as a source of water supply.

Reference: 2

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS
Target Rock Corporation - 12/09/93

Level II Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

Population Served by Level II Intakes: 0.0

Level II Population Factor: 0.00E+00

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS
Target Rock Corporation - 12/09/93

Potential Contamination

Intake ID	Average Annual Flow (cfs)	Population Served
- N/A and/or data not specified		

Type of Surface Water Body	Total Population	Dilution-Weighted Population
- N/A and/or data not specified		

Dilution-Weighted Population Served by Potentially Contaminated Intakes: 0.0

Potential Contamination Factor: 0.0

Nearest Intake

Location of Nearest Drinking Water Intake: N.A.

Nearest Intake Factor: 0.00

Resources

Resource Use: NO

Resource Value: 0.00E+00

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 1 CB Drum Storage

Source Hazardous Waste Quantity Value: 40.00

Hazardous Substance	Toxicity Value	Persistence Value	Bio-accum. Value	Toxicity/ Persistence/ Bioaccum. Value
Bis (2-ethylhexyl) phthalate	100	1.00E+00	5.00E+02	5.00E+04
Carbon disulfide	1000	4.00E-01	5.00E+01	2.00E+04
Dichloroethene, 1,1-	100	4.00E-01	5.00E+01	2.00E+03
Trichloroethane, 1,1,1-	10	4.00E-01	5.00E+00	2.00E+01

Hazardous Substances Found in an Observed Release

Sample No.	Observed Release Hazardous Substance	Toxicity Value	Persistence Value	Bio-accum. Value	Toxicity/ Persistence/ Bioaccum. Value
1	Dichloroethene, 1,1-	100	4.00E-01	5.00E+01	2.00E+03
1	Trichloroethane, 1,1,1-	10	4.00E-01	5.00E+00	2.00E+01

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Toxicity/Persistence/Bioaccumulation Value from Source Hazardous Substances:	2.00E+03
Toxicity/Persistence/Bioaccumulation Value from Observed Release Hazardous Substances:	2.00E+03
Toxicity/Persistence/Bioaccumulation Factor:	2.00E+03
Sum of Source Hazardous Waste Quantity Values:	4.00E+01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	10

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
Target Rock Corporation - 12/09/93

Level I Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value
- N/A and/or data not specified		

Sum of Human Food Chain Population Values: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value
- N/A and/or data not specified		

Sum of Human Food Chain Population Values: 0.00E+00

Level II Concentrations Factor: 0.00E+00

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
Target Rock Corporation - 12/09/93

Potential Contamination

Fishery	Annnual Production (pounds)	Type of Surface Water Body	Average Annual Flow (cfs)	Pop. Value (Pi)	Dilution Weight (Di)	Pi*Di
- N/A and/or data not specified						

Sum of (Pi*Di): 0.00E+00

Potential Human Food Chain Contamination Factor: 0.00E+00

Food Chain Individual

Location of Nearest Fishery: N.A.

Food Chain Individual Factor: 0.00

Source: 1 CB Drum Storage

Source Hazardous Waste Quantity Value: 40.00

Hazardous Substance	Eco-toxicity Value	Persistence Value	Bio-accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
Bis (2-ethylhexyl) phthalate	1000	1.00E+00	5.00E+04	5.00E+07
Carbon disulfide	100	4.00E-01	5.00E+01	2.00E+03
Dichloroethene, 1,1-	10	4.00E-01	5.00E+01	2.00E+02
Trichloroethane, 1,1,1-	10	4.00E-01	5.00E+00	2.00E+01

Hazardous Substances Found in an Observed Release

Sample No.	Observed Release Hazardous Substance	Eco-toxicity Value	Persistence Value	Bio-accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
1	Dichloroethene, 1,1-	10	4.00E-01	5.00E+01	2.00E+02
1	Trichloroethane, 1,1,1-	10	4.00E-01	5.00E+00	2.00E+01

Ecotoxicity/Persistence/Bioaccummulation Value from Source Hazardous Substances:	2.00E+02
Ecotoxicity/Persistence/Bioaccummulation Value from Observed Release Hazardous Substances:	2.00E+02
Ecotoxicity/Persistence/Bioaccummulation Factor:	2.00E+02
Sum of Source Hazardous Waste Quantity Values:	4.00E+01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	6

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

Sample ID: TRSW-1
Sample Medium: Aqueous
Location: 0.00 miles

Hazardous Substance	Hazardous Substance Concentration	AWQC Benchmarks Concentrations FRESH	SALT	Units
Dichloroethene, 1,1-	7.0E+00	0.0E+01	0.0E+01	ppb
Trichloroethane, 1,1,1-	2.0E+01	0.0E+01	0.0E+01	ppb

Documentation for TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

Sample ID: TRSW-1
Distance from the Probable Point of Entry: 0.00 miles

Documentation for TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS
Target Rock Corporation - 12/09/93

Level I Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Sum of Sensitive Environments Values: 0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
- N/A and/or data not specified		

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
- N/A and/or data not specified		
Sum of Sensitive Environments Values:		0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
- N/A and/or data not specified		

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level II Concentrations Factor: 0.00E+00

Potential Contamination

Sensitive Environments

Type of Surface Water Body	Sensitive Environment	Sensitive Environment Value

Wetlands

Type of Surface Water Body	Sensitive Environment	Wetlands Frontage	Wetlands Value

- N/A and/or data not specified

Documentation for Sensitive Environment NY Endang. Sp. :

A NYSDEC rare, threatened or endangered species habitat is within the target distance.

Reference: 4

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS

Target Rock Corporation - 12/09/93

Type of Surface Water Body	Sum of Sens. Environment Values(Sj)	Sum of Wetland Frontage Values(Wj)	Dilution Weight (Dj)	Dj(Wj+Sj)
- N/A and/or data not specified				

Sum of Dj(Wj+Sj): 0.00E+00

Sum of Dj(Wj+Sj)/10: 0.00E+00

Potential Contamination Sensitive Environment Factor: 0.00E+00

SURFACE WATER PATHWAY GW TO SW CONTAINMENT SUMMARY
Target Rock Corporation - 12/09/93

Containment

No.	Source ID	HWQ Value	Containment Value
1	CB Drum Storage	4.00E+01	10
2	Former Drywell	7.50E+02	10
	Containment Factor		10

Documentation for Ground Water Containment, Source CB Drum Storage:

The drywell at the site drained directly to the upper glacial aquifer. The catch basins at the site are in direct contact with the upper glacial aquifer.

Reference: 1

Documentation for Ground Water Containment, Source Former Drywell:

The former drywell was in direct contact with the groundwater.

Reference: 1

Net Precipitation

Net Precipitation (inches)	0.00

Aquifer: upper glacial

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

Documentation for upper glacial Aquifer:

This aquifer is approximately 20 to 40 feet thick at the site and is composed of Pleistocene outwash sands and gravels. These sands and gravels are found over most of Long Island and are moderately to highly permeable. Although this aquifer is in direct contact with the Magothy Aquifer the water bearing zones of the Magothy are approximately 500 feet below the ground surface and are not believed to be influenced by site activities under natural hydrogeologic conditions.

Reference: 1

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination
1	TRMW-2	Monitoring Well	0.200	Level II
2	TRMW-4	Monitoring Well	0.100	Level I

Well No.	Hazardous Substance	Concent.	MCL	Cancer	RFD	Units
1	Trichloroethane, 1,1,1-	4.3E+01	2.0E+02	0.0E+00	3.2E+03	ppb
2	Bis (2-ethylhexyl) phthalate	2.6E+01	0.0E+00	2.5E+00	7.0E+02	ppb
2	Carbon disulfide	1.1E+01	0.0E+00	0.0E+00	3.5E+03	ppb
2	Trichloroethane, 1,1,1-	6.6E+01	2.0E+02	0.0E+00	3.2E+03	ppb

Observed Release Factor 550

Documentation for Well TRMW-2:

Upper glacial monitoring well completed near the west building

Reference: 1

Documentation for Well TRMW-4:

Upper glacial monitoring well completed at the bottom of the aquifer. This well is directly downgradient of the former drywell area.

Reference: 1

POTENTIAL TO RELEASE

Ground Water to Surface Water Angle

Probable Point of Entry	0.00	miles
Angle Theta	0	

Containment

Containment Factor	10	

Net Precipitation

Net Precipitation Factor	6	

Depth to Aquifer

A. Depth of Hazardous Substances	30.00	feet
B. Depth to Aquifer from Surface	5.00	feet
C. Depth to Aquifer (B - A)	0.00	feet
Depth to Aquifer Factor	5	

Travel Time

Are All Layers Karst?	NO	
Thickness of Layer(s) with Lowest Conductivity	0.00	feet
Hydraulic Conductivity (cm/sec)	0.0E-00	
Travel Time Factor	35	

==========

Potential to Release Factor 460

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 1 CB Drum Storage

Source Hazardous Waste Quantity Value: 40.00

Hazardous Substance	Toxicity Factor Value	Persist. Value	Mobility Value	Toxicity/ Mobililty/ Persistence
Dichloroethene, 1,1-	100	4.00E-01	1.00E-02	4.00E-01
Trichloroethane, 1,1,1-	10	4.00E-01	1.00E-02	4.00E-02

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 2 Former Drywell

Source Hazardous Waste Quantity Value: 750.00

Hazardous Substance	Toxicity Factor Value	Persist. Value	Mobility Value	Toxicity/ Mobililty/ Persistence
Trichloroethane, 1,1,1-	10	4.00E-01	1.00E-02	4.00E-02

Hazardous Substances Found in an Observed Release

Observed Release Hazardous Substance	Toxicity Factor Value	Persist. Value	Toxicity/ Persistence
Bis (2-ethylhexyl) phthalate	100	1.00E+00	1.00E+02
Carbon disulfide	1000	4.00E-01	4.00E+02
Trichloroethane, 1,1,1-	10	4.00E-01	4.00E+00

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Toxicity/Mobility/Persistence Value from Source Hazardous Substances:	4.00E-01
Toxicity/Mobility/Persistence Value from Observed Release Hazardous Substances:	4.00E+02
Toxicity/Mobility/Persistence Factor:	4.00E+02
Sum of Source Hazardous Waste Quantity Values:	4.00E+01
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	10

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

Sample ID: TRSW-1
Sample Medium: Aqueous
Location: 0.00 miles

Hazardous Substance	Hazardous Substance Concentration	DW MCL Benchmark Concentration	Units	Observed in Upper Aquifer ?
Dichloroethene, 1,1-	7.0E+00	7.0E+00	ppb	NO
Trichloroethane, 1,1,1-	2.0E+01	2.0E+02	ppb	YES

Documentation for TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

Sample ID: TRSW-1
Distance from the Probable Point of Entry: 0.00 miles

Documentation for TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

Level I Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

Population Served by Level I Intakes: 0.0

Level I Population Factor: 0.00E+00

Level II Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

Population Served by Level II Intakes: 0.0

Level II Population Factor: 0.00E+00

Documentation for Intake :

The area within the target distance limit is served by groundwater sources. Most of Long Island relies on groundwater as a source of water supply.

Reference: 2

Potential Contamination

Intake ID	Average Annual Flow (cfs)	Population Served
- N/A and/or data not specified		

Type of Surface Water Body	Total Population	Dilution-Weighted Population
- N/A and/or data not specified		

Dilution-Weighted Population Served
by Potentially Contaminated Intakes: 0.0

Potential Contamination Factor: 0.0

Nearest Intake

Location of Nearest Drinking Water Intake: N.A.

Nearest Intake Factor: 0.00

Resources

Resource Use: NO

Resource Value: 0.00E+00

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 1 CB Drum Storage

Source Hazardous Waste Quantity Value: 40.00

Hazardous Substance	Toxicity Value	Persist. Value	Mobility Value	Bio-accum. Value	Tox./Mobil./ Persistence/ Bioaccum. Value
Bis (2-ethylhexyl) phthalate	100	1.00E+00	2.00E-07	5.00E+02	1.00E-02
Carbon disulfide	1000	4.00E-01	1.00E-02	5.00E+01	2.00E+02
Dichloroethene, 1,1-	100	4.00E-01	1.00E-02	5.00E+01	2.00E+01
Trichloroethane, 1,1,1-	10	4.00E-01	1.00E-02	5.00E+00	2.00E-01

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 2 Former Drywell

Source Hazardous Waste Quantity Value: 750.00

Hazardbus Substance	Toxicity Value	Persist. Value	Mobility Value	Bio-accum. Value	Tox./Mobil./ Persistence/ Bioaccum. Value
Trichloroethane, 1,1,1-	10	4.00E-01	1.00E-02	5.00E+00	2.00E-01

Hazardous Substances Found in an Observed Release

Observed Release Hazardous Substance	Toxicity Value	Persist. Value	Bio-accum. Value	Toxicity/ Persistence Bioaccum. Value
Bis (2-ethylhexyl) phthalate	100	1.00E+00	5.00E+02	5.00E+04
Carbon disulfide	1000	4.00E-01	5.00E+01	2.00E+04
Trichloroethane, 1,1,1-	10	4.00E-01	5.00E+00	2.00E+01

Toxicity/Mobility/Persistence/Bioaccumulation Value from Source Hazardous Substances:	2.00E+01
Toxicity/Mobility/Persistence/Bioaccumulation Value from Observed Release Hazardous Substances:	5.00E+04
Toxicity/Mobility/Persistence/Bioaccumulation Factor:	5.00E+04
Sum of Source Hazardous Waste Quantity Values:	4.00E+01
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	32

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

Level I Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value
- N/A and/or data not specified		

Sum of Human Food Chain Population Values: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value
- N/A and/or data not specified		

Sum of Human Food Chain Population Values: 0.00E+00

Level II Concentrations Factor: 0.00E+00

Potential Contamination

Fishery	Annnual Production (pounds)	Type of Surface Water Body	Average Annual Flow (cfs)	Pop. Value (Pi)	Dilution Weight (Di)	Pi*Di
- N/A and/or data not specified						

Sum of (Pi*Di): 0.00E+00

Potential Human Food Chain Contamination Factor: 0.00E+00

Food Chain Individual

Location of Nearest Fishery: N.A.

Food Chain Individual Factor: 0.00

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 1 CB Drum Storage

Source Hazardous Waste Quantity Value: 40.00

Hazardous Substance	Eco-toxicity Value	Persist. Value	Mob. Value	Bio-accum. Value	Ecotoxicity/ Mobility/ Persistence/ Bioaccum. Value
Bis (2-ethylhexyl) phthalate	1000	1.00E+00	2.00E-07	5.00E+04	1.00E+01
Carbon disulfide	100	4.00E-01	1.00E-02	5.00E+01	2.00E+01
Dichloroethene, 1,1-	10	4.00E-01	1.00E-02	5.00E+01	2.00E+00
Trichloroethane, 1,1,1-	10	4.00E-01	1.00E-02	5.00E+00	2.00E-01

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 2 Former Drywell

Source Hazardous Waste Quantity Value: 750.00

Hazardous Substance	Eco-toxicity Value	Persist. Value	Mob. Value	Bio-accum. Value	Ecotoxicity/ Mobility/ Persistence/ Bioaccum. Value
Trichloroethane, 1,1,1-	10	4.00E-01	1.00E-02	5.00E+00	2.00E-01

Hazardous Substances Found in an Observed Release

Observed Release Hazardous Substance	Eco-toxicity Value	Persist. Value	Bio-accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
Bis (2-ethylhexyl) phthalate	1000	1.00E+00	5.00E+04	5.00E+07
Carbon disulfide	100	4.00E-01	5.00E+01	2.00E+03
Trichloroethane, 1,1,1-	10	4.00E-01	5.00E+00	2.00E+01

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Ecotoxicity/Mobility/Persistence/Bioaccummulation Value from Source Substances:	2.00E+00
Ecotoxicity/Mobility/Persistence/Bioaccummulation Value from Observed Hazardous Substances:	5.00E+07
Ecotoxicity/Mobility/Persistence/Bioaccummulation Factor:	5.00E+07
Sum of Source Hazardous Waste Quantity Values:	4.00E+01
Hazardous Waste Quantity Factor:	100
Waste Characteristics Factor Category:	180

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

Sample ID: TRSW-1
Sample Medium: Aqueous
Location: 0.00 miles

Hazardous Substance	Hazardous Substance Concentration	AWQC Benchmark Concentrations FRESH	SALT	Units	Observed in Upper Aquifer ?
Dichloroethene, 1,1-	7.0E+00	0.0E+01	0.0E+01	ppb	NO
Trichloroethane, 1,1,1-	2.0E+01	0.0E+01	0.0E+01	ppb	YES

Documentation for TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

Sample ID: TRSW-1
Distance from the Probable Point of Entry: 0.00 miles

Documentation for TRSW-1:

This sample was taken from the catch basin near the drum storage area. It is believed that that this is actually more representative of the groundwater.

Reference: 1

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT TARGETS
Target Rock Corporation - 12/09/93

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT TARGETS
Target Rock Corporation - 12/09/93

Level I Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Sum of Sensitive Environments Values: 0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
- N/A and/or data not specified		

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Sum of Sensitive Environments Values: 0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
- N/A and/or data not specified		

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level II Concentrations Factor: 0.00E+00

Potential Contamination

Sensitive Environments

Type of Surface Water Body	Sensitive Environment	Sensitive Environment Value

Wetlands

Type of Surface Water Body	Sensitive Environment	Wetlands Frontage	Wetlands Value

- N/A and/or data not specified

Documentation for Sensitive Environment NY Endang. Sp. :

A NYSDEC rare, threatened or endangered species habitat is within the target distance.

Reference: 4

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT TARGETS

Target Rock Corporation - 12/09/93

Type of Surface Water Body	Sum of Sens. Environment Values(Sj)	Sum of Wetland Frontage Values(Wj)	Dilution Weight (Dj)	Dj(Wj+Sj)
- N/A and/or data not specified				

Sum of Dj(Wj+Sj): 0.00E+00

Sum of Dj(Wj+Sj)/10: 0.00E+00

Potential Contamination Sensitive Environment Factor: 0.00E+00

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT LIKELIHOOD OF EXPOSURE
Target Rock Corporation - 12/09/93

Likelihood of Exposure

No.	Source ID	Level of Contamination
- N/A and/or data not specified		

Likelihood of Exposure Factor: 0

Source: 0 (null)

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Value
(null)	11

Sum of Source Hazardous Waste Quantity Values: 0.00E+00

Documentation for Level I Population:

There are no residents, students or daycare attendees within 200 feet of the contamination as calculated by the LMS GIS system.

Reference: 7

Waste Characteristics Factor Category: 0

Documentation for Level II Population:

The nearest resident as calculated by the LMS GIS system is 558 feet to the south. The nearest school as calculated by the LMS GIS system is 933 feet to the north, north-west.

Reference: 7

Toxicity Factor: %8.21E
Target Rock Corporation - 12/09/93

Targets

Level I Population: 200.0 Value: 0.00

Documentation for Workers:

The Target Rock Corporation employs approxamately 200 persons who work within 200 feet of the observed contamination.

Reference: 1

Level II Population: 0.0 Value: 0.00

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Documentation for Resources:

No resources identified.

Reference: 1

- N/A and/or data not specified

Resident Individual: (null) Value: 0.00

Terrestial Sensitive Environment	Value
- N/A and/or data not specified	

Terrestrial Sensitive Environments Factor: 0.00

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SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT LIKELIHOOD OF EXPOSURE

Likelihood of Exposure

No.	Source ID	Level of Contamination	Attractiveness/ Accessibility	Area of Contam. (sq. feet)		
0		^	12837	622862436		
0	(null)	(null)	3.9E-67	3.5E-62	3.2E-91	

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SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS

Target Rock Corporation - 12/09/93

Source: 0

Source Hazardous Waste Quantity Value: 1.00

Hazardous Substance	Toxicity Value
(null)	-12288

Toxicity Factor:	5.46E+02
Sum of Source Hazardous Waste Quantity Values:	6.18E+03
Hazardous Waste Quantity Factor:	0

Documentation for Population > 0 to 1/4 mile Distance Category:

LMS GIS system which is based on U.S. Census of Population and Housing, 1990

Reference: 5

Documentation for Population > 1/4 to 1/2 mile Distance Category:

LMS GIS system which is based on U.S. Census of Population and Housing 1990.

Reference: 5

Documentation for Population > 1/2 to 1 mile Distance Category:

LMS GIS system which is based on U.S. Census of Population and Housing 1990.

Reference: 5

AIR PATHWAY LIKELIHOOD OF RELEASE
Target Rock Corporation - 12/09/93

OBSERVED RELEASE

No.	Sample ID	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Observed Release Factor: 0

Gas Migration Potential

GAS POTENTIAL TO RELEASE

Source ID	Source Type	Gas Contain. Value (A)	Gas Source Type Value (B)	Gas Migrtn. Potent. Value (C)	Sum (B+C)	Gas Potential to Rel. Value A(B+C)
CB Drum Storage	Other	7	0	17	17	119

Gas Potential to Release Factor: 119

Documentation for Source Type, Source CB Drum Storage:

The contamination found in the catch basin is believed to be reflective of the groundwater and does not represent contamination that continues to act as a on-going source.

Reference: 1

Documentation for Secondary Source Type, CB Drum Storage:

There are no secondary source types at the site.

Reference: 1

Documentation for Gas Containment, Source Former Drywell:

Monitoring instruments did not detect any gas releases at the site.

Reference: 1

Documentation for Source Type, Source Former Drywell:

Solvent-contaminated wastewater was disposed of in a drywell to the south of the east building. The wastewater was placed in the drywell from mid-1982 to September 1983. A qualified removal action occurred at the site which appears to have alleviated most of the soil contamination.

Reference: 1

Documentation for Secondary Source Type, Former Drywell:

No secondary sources were found at the site.

Reference: 1

Source: CB Drum Storage

Gaseous Hazardous Substance	Hazardous Substance Gas Migration Potential Value
Dichloroethene, 1,1-	17
Trichloroethane, 1,1,1-	17

Average of Gas Migration Potential Value for 3 Hazardous Substances: 17.000

Gas Migration Potential Value From Table 6-7: 17

Source: Former Drywell

Gaseous Hazardous Substance	Hazardous Substance Gas Migration Potential Value
Trichloroethane, 1,1,1-	17

Average of Gas Migration Potential Value for 3 Hazardous Substances: 17.000

Gas Migration Potential Value From Table 6-7: 17

Particulate Migration Potential

PARTICULATE POTENTIAL TO RELEASE

Source ID	Source Type	Partic. Contain. Value (A)	Partic. Source Type Value (B)	Partic. Migrtn. Potent. Value (C)	Sum (B+C)	Partic. Potential to Rel. Value A(B+C)
- N/A and/or data not specified						

Particulate Potential to Release Factor: 0

Documentation for Source Type, Source CB Drum Storage:

The contamination found in the catch basin is believed to be reflective of the groundwater and does not represent contamination that continues to act as a on-going source.

Reference: 1

Documentation for Secondary Source Type, CB Drum Storage:

There are no secondary source types at the site.

Reference: 1

Documentation for Source Type, Source Former Drywell:

Solvent-contaminated wastewater was disposed of in a drywell to the south of the east building. The wastewater was placed in the drywell from mid-1982 to September 1983. A qualified removal action occurred at the site which appears to have alleviated most of the soil contamination.

Reference: 1

Documentation for Secondary Source Type, Former Drywell:

No secondary sources were found at the site.

Reference: 1

Source: CB Drum Storage

Particulate Hazardous Substance

Source: Former Drywell

Particulate Hazardous Substance

AIR PATHWAY WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Source: 1 CB Drum Storage

Source Hazardous Waste Quantity Value: 40.00

Hazardous Substance	Toxicity Value	Gas Mobility Value	Particulate Mobility Value	Toxicity/ Mobility Value
Dichloroethene, 1,1-	100	1.00E+00	NA	1.00E+02
Trichloroethane, 1,1,1-	10	1.00E+00	NA	1.00E+01

Hazardous Substances Found in an Observed Release

Sample ID	Observed Release Hazardous Substance	Particulate Toxicity/ Mobility Value	Gas Toxicity/ Mobility Value

- N/A and/or data not specified

AIR PATHWAY WASTE CHARACTERISTICS
Target Rock Corporation - 12/09/93

Toxicity/Mobility Value from Source Hazardous Substances:	1.00E+02
Toxicity/Mobility Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility Factor:	1.00E+02
Sum of Source Hazardous Waste Quantity Values:	4.00E+01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	6

Actual Contamination

No.	Sample ID	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Potential Contamination

Distance Categories Subject to Potential Contamination	Population	Value
Onsite	200.0	16.4000
> 0 to 1/4 mile	509.0	13.1000
> 1/4 to 1/2 mile	546.0	2.8000
> 1/2 to 1 mile	6176.0	8.3000
> 1 to 2 miles	31742.0	26.6000
> 2 to 3 miles	55538.0	12.0000
> 3 to 4 miles	91159.0	7.3000
	Potential Contaminantion Factor:	86.0000

Documentation for Population Onsite Distance Category:

Based on the number of full time workers at the site.

Reference: 1

Documentation for Population > 0 to 1/4 mile Distance Category:

Calculated using the LMS GIS system which is based on the U.S. census data for 1990.

Reference: 5

Documentation for Population > 1/4 to 1/2 mile Distance Category:

Calculated using the LMS GIS system which is based on the U.S. census data for 1990.

Reference: 5

Documentation for Population > 1/2 to 1 mile Distance Category:

Calculated using the LMS GIS system which is based on the U.S. census data for 1990.

Reference: 5

Documentation for Population > 1 to 2 miles Distance Category:

Calculated using the LMS GIS system which is based on the U.S. census data for 1990.

Reference: 5

Documentation for Population > 2 to 3 miles Distance Category:

Calculated using the LMS GIS system which is based on the U.S. census data for 1990.

Reference: 5

Documentation for Population > 3 to 4 miles Distance Category:

Calculated using the LMS GIS system which is based on the U.S. census data for 1990.

Reference: 5

Nearest Individual Factor

Level of Contamination: Potential
Distance in miles: 0 to 1/8

Nearest Individual Value: 20

Documentation for Nearest Individual:

The distance was calculated using the LMS GIS system which is based on the U.S. census data for 1990.

Reference: 7

Resources

Resource Use: YES

Resource Value: 5

Documentation for Resources:

No resources identified.

Reference: 1

AIR PATHWAY TARGETS
Target Rock Corporation - 12/09/93

Actual Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Actual Contamination, Wetlands

Distance Category	Wetland Acreage	Wetland Acreage Value
- N/A and/or data not specified		

Sensitive Environments Actual Contamination Factor: 0.000
(Sum of Sensitive Environments + Wetlands Values)

Potential Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Sensitive Environment Value	Distance Weight	Weighted Value/10
- N/A and/or data not specified				

Potential Contamination, Wetlands

Distance Category	Wetland Acreage	Wetland Acreage Value	Distance Weight	Weighted Value/10
> 1/2 to 1 mile	2.0	25.0	0.0160	0.040

Total Wetland Acreage: 2.0

Sum of Wetland Weighted Acreage Values/10: 0.040

Sensitive Environment Potential Contamination Factor: 0.040

Documentation for Sensitive Environment NY Endang. Species:

The habitat of a New York state endangered species is within the target disatance limit.

Reference: 4

REFERENCES

Target Rock Corporation - 12/09/93

1. Lawler, Matusky & Skelly Engineers (LMS). 1993. Phase II investigation report, Target Rock Corporation.

2. Letter from George Veilson, East Farmingdale Water District, to Michael Lehtinen, LMS, regarding sources of information about well operations in the vicinity of the Target Rock site.

3. New York State Department of Environmental Conservation (NYSDEC). 1990. New York State Wellhead Protection Program. Submitted to EPA.

4. Letter fom Burrell Buffington, NYSDEC, to Michael Lehtinen, LMS, regarding rare plants, animals, and natural communities in the vicinity of the Target Rock site.

5. Lawler, Matusky & Skelly Engineers (LMS). 1993. LMS GIS table listing population in the vicinity of the Target Rock site. Based on data from the U.S. Census of Poulation and Housing, 1990.

6. Dynamap 2000 base map of Suffolk County, New York, Version 3.0. Geographic Data Technology, Inc. (GDT), Lyme, New Hampshire.

7. Lawler, Matusky & Skelly Engineers (LMS). 1993. Listing of wetland, schools, residence, habitat, and well nearest the Target Rock site. Based on data from NWI, USGS, and NYSDEC Natural Heritage Program.